

**SITE ASSESSMENT REPORT**  
**PROPOSED LYNWOOD SPRINGS RETAIL CENTER**  
**11600 LONG BEACH BLVD.**  
**LYNWOOD, CALIFORNIA**  
**(LARWQCB FILE NOS. R-23001 AND R-12239)**

April 21, 2003

Prepared for:

**The City of Lynwood Redevelopment Agency**  
11330 Bullis Road  
Lynwood, CA 90262

For Submittal to the  
Los Angeles Regional Water Quality Control Board

Prepared by:  
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W&A Job No. LYN-06-202

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**WINEFIELD & ASSOCIATES, INC.**  
ENVIRONMENTAL AND SAFETY CONSULTANTS



# City of LYNWOOD

*A City Meeting Challenges*

11330 BULLIS ROAD  
LYNWOOD, CALIFORNIA 90262  
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OFFICE OF THE CITY MANAGER

May 13, 2003

VIA FEDERAL EXPRESS

Ms. Bobbie Kahan  
Brownfields Coordinator  
US EPA Region 9 (SFD-1-1)  
75 Hawthorne Street  
San Francisco, CA 94105

Dear Ms. Kahan:

SUBJECT: SITE ASSESSMENT REPORT  
PROPOSED LYNWOOD SPRINGS RETAIL CENTER

Enclosed please find the Site Assessment Report submitted for the above project for your review.

Should you have any questions or concerns, please do not hesitate to contact me at (310) 603-0220, extension 617.

Sincerely,

Autra Adams  
Special Assistant

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April 21, 2003

Prepared for:

Ms. Shirley Wolf  
**The City of Lynwood Redevelopment Agency**  
11330 Bullis Road  
Lynwood, CA 90262

For Submittal to the  
Los Angeles Regional Water Quality Control Board

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## 1.0 INTRODUCTION

This report summarizes additional site assessment and groundwater monitoring and sampling activities at the proposed Lynwood Springs Retail Center, located at 11600 Long Beach Blvd., Lynwood, California (site). The site is located on the east side of Long Beach Blvd. and just south of the Glenn Anderson 105 Freeway (Figure 1). Site assessment and groundwater monitoring and sampling were performed by Winefield & Associates (W&A) and Ninyo & Moore (N&M) under the supervision of a W&A Registered Geologist and an N&M Professional Engineer.

The site assessment was performed to further assess the extent of chlorinated hydrocarbon contamination in the soil and groundwater, to obtain data for use in the development of a human health risk assessment, and to assess the physical distribution of the separate phase petroleum hydrocarbon plume beneath the site. The City of Lynwood Redevelopment Agency contracted W&A to prepare a Work Plan for the completion of additional assessment of subsurface contamination at the site. The Los Angeles Regional Water Quality Control Board (LARWQCB), in a letter dated February 4, 2003, approved the *Work Plan for Site Assessment, Feasibility Study and Preparation of Remedial Action Plan* prepared by W&A dated December 9, 2002 and an addendum to the Work Plan. A copy of the LARWQCB letter is included in Appendix A for reference. The Work Plan included a Sampling and Analysis Plan, which was conditionally approved by Region IX of the Environmental Protection Agency.

The site is located on the east side of Long Beach Boulevard and extends south from the south side of the 105 Freeway to Josephine Street (see Figure 1). The site is currently composed of a number of individual properties that include residences, a strip mall that includes a former dry cleaner and a retail gasoline station, an existing restaurant, and a U-Haul vehicle rental facility. Figure 2 shows the current layout of the site. Those portions of the site between the 105 Freeway and Louise Street are referenced as the "Garfield Express Property" throughout this report. Those portions of the site between Louise Street and Josephine Street are referenced as the "U-Haul Property" throughout this report.

## 2.0 BACKGROUND INFORMATION

A site background summary is included in W&A's *Work Plan for Site Assessment, Feasibility Study and Preparation of a Remedial Action Plan*, dated December 9, 2002.

### 3.0 REGIONAL AND SITE-SPECIFIC GEOLOGY AND HYDROGEOLOGY

The regional information is presented in the previous W&A Work Plan dated December 9, 2002. Previously constructed cross-sections of borings at the site have revealed interbedded clay, sand and silt layers from ground surface to about 15 feet bgs. Sediments generally become finer as they approach 15 feet bgs below which the sediment consists predominantly of silt and clay interlayered with smaller lenticular deposits of sand. This zone of fine-grained sediment extends to a depth of about 25 to 30 feet bgs across the site and appears to be undulatory in nature, i.e., the depth to the bottom of the finer-grained sediment varies laterally.

The upper saturated zone underlies the silt-clay zone and consists predominantly of extensive deposits of poorly graded sand and silty sand. This coarse-grained zone appears more uniform and continuous beneath the northern portion of the site, while toward the south it becomes interlayered with silt and clay. Subsurface sediments appear to be markedly lenticular and highly variable when viewed in the east-west cross-sections and are more uniform and elongated when viewed north to south, thus echoing an overall linear trend of fluvial and alluvial fan deposition across the regional slope from north to south.

Drilling and well installation at the site have shown that first occurrence of groundwater occurs at a depth of about 25 feet bgs. Groundwater in wells generally stabilizes at about one to five feet above where it is first encountered during drilling, suggesting that it is under variable or discontinuous confining pressure resulting from the heterogeneity of the shallow sediments.

The saturated zone beneath the site generally consists of poorly graded sand and silty sand that is directly overlain by predominantly finer-grained sediments consisting mainly of silt and clay. The contact between the upper surface of the aquifer and the overlying aquitard appears to extend across the entire site, however, given the lateral and vertical heterogeneity of sediments beneath the site, the characteristics of that confining contact also vary laterally. The lithology of the aquifer beneath the northern portion of the site appears to be more uniform sand than the southern portion where the sand becomes interlayered with silt and clay. First-encountered groundwater coincides generally with the contact of the bottom of the silt/clay zone and the top of the underlying sand.

The observed variation in confining conditions across the site (i.e., the depth of first-encountered groundwater versus the height of the stabilized level of groundwater in wells) may be based on several

factors, including the depth to the bottom of the overlying aquitard, the permeability of the aquitard, the screened interval of each well in the saturated zone, and the precision of field observations during drilling. The aquitard overlying the sand aquifer is laterally heterogeneous and confining conditions are expected to be variable as well as discontinuous both laterally and seasonally over time.

#### **4.0 PRE-FIELD ACTIVITIES**

Prior to beginning field work at the site, W&A submitted an Application for Well Permits and Service Request Application to the Los Angeles County Department of Health Services (LADOHS) and obtained approval from the LADOHS to proceed with well installation. A copy of the approved document is included in Appendix B. On January 31, 2003, a W&A technician visited the site to pre-mark drilling locations. W&A then notified Underground Services Alert for underground utility clearance. The City and the LARWQCB were also notified in advance of the field work.

#### **5.0 DRILLING, SOIL SAMPLING AND WELL INSTALLATION**

On February 10 and 11, 2003, and March 3 and 4, 2003, W&A geologists supervised the drilling and soil sampling of four off-site borings for installation of groundwater monitoring wells W&A-MW-1 through W&A-MW-4, three onsite borings for installation of vapor extraction wells W&A-HVW-1 through W&A-HVW-3, and four onsite soil borings (W&A-SB-1 through W&A-SB-4) for lithologic and contaminant analysis. Figure 2 shows the boring and well locations. In keeping with W&A's safety protocol, the soil borings were each hand augered to an appropriate depth prior to commencement of mechanical drilling.

Drilling was performed by Prosonic Corporation using CME-75 hollow-stem-auger drilling rigs. Each boring was drilled and sampled to a maximum depth of 46.5 feet for the groundwater monitoring wells, 23.0 feet for the vapor extraction wells, and 36.5 feet for the soil borings using 8-inch outer-diameter augers. All down-hole drilling and sampling equipment was either pressure washed or triple rinsed prior to being introduced to the subsurface.

Soil samples were collected during drilling at approximately 5-foot depth intervals in the vadose and saturated zones using a 2-inch diameter, 18-inch long split-barrel sampler inside the hollow stem augers.

The lithology of the borehole was logged by the W&A geologist using the Unified Soil Classification system (USCS). A field photoionization detector (PID) was used to screen soils for the presence of volatile organic compounds (VOCs). Drill logs that were prepared from field notes recorded during drilling are presented in Appendix C. The logs provide a summary of the sample collection and retrieval intervals, lithology and PID readings from the boreholes.

Undisturbed soil samples were collected into 2-inch diameter, 6-inch long stainless steel rings that were placed into the 18-inch split-barrel sampler. The sampler was driven into the undisturbed soil at the bottom of the borehole by hammering it after the borehole was drilled to the top of the desired sampling depth. Soil samples were selected for laboratory chemical analysis based on specifications within the W&A Work Plan and Sampling and Analysis Plan. Soil samples were also selected pursuant to field assessments of PID readings and proximity to the water table.

Soil samples were collected for laboratory analysis from undisturbed soil in selected sample rings using the EPA 5035 sampling technique. An En Core® sampler and containers were used to package the samples. Upon retrieval of each soil sample from the borehole, soil from the stainless steel rings was collected into 5-gram En Core® sample containers and immediately sealed, labeled and placed into a cooler on ice for transport to a State-certified laboratory for chemical analysis. Selected soil samples were also packaged for duplicate laboratory analysis.

Soil sample rings were also packaged for laboratory analysis by taking sample rings from the split-barrel sampler and sealing at both ends by Teflon® sheeting and end caps. Each ring was labeled with identification information, placed into a sealable plastic bag and placed into a cooler on ice.

Soil in the remaining stainless steel rings was used for visual inspection, lithologic logging, and field headspace readings for VOCs. Headspace readings were obtained by placing soil into a sealable plastic bag and agitating the soil. The PID probe was then inserted into the bag to screen the headspace air for the presence of volatile organics. Sampling intervals and headspace readings are recorded on the drill logs (see Appendix C).

All packaged soil samples were labeled in the following manner: "W&A" to denote "Winefield & Associates", followed by either "MW" to denote "monitoring well", "HVW" to denote "high vacuum well", or "SB" to denote "soil boring" followed by the well number, followed by a hyphen and the

sample collection depth. For example, sample "W&A-MW-2-35" denotes a sample collected from well W&A-MW-2 at a depth of 35 feet. Duplicate samples were labeled with the same designation as the EPA Method 5035 samples followed by "D". Quality assurance equipment blanks ("rinsates") were collected every day of soil sampling for verification of adequate sampling equipment field decontamination. The rinsate samples were labeled W&A-ER-1 through W&A-ER-2. Temperature blanks consisting of a 40-ml vial of clean water were placed into each sample cooler for the measurement of sample temperature upon receipt of the samples by the lab. The temperature blanks were labeled #1 through #5.

A 2-inch diameter Schedule-40 PVC groundwater monitoring or high vacuum well was installed into each of the 7 borings for W&A-MW-1 through W&A-MW-4 and W&A-HVW-1 through W&A-HVW-3. The wells were installed to depths ranging between 23 feet bgs (HVW) and 46.5 feet bgs (MW). Groundwater adjacent to the site was initially encountered at approximately 23 to 26.5 feet bgs during drilling. The groundwater monitoring wells were constructed using 30 feet of screen from the bottom of each boring up to approximately 15 feet bgs. The high vacuum wells were screened from approximately 18 to 23 feet bgs. The drill logs in Appendix C contain construction details of the wells.

Each groundwater monitoring well was developed by surging and bailing approximately 30 to 50 gallons of water after the filter (sand) pack was installed around the screen. Initial well development was performed to settle the filter pack and to remove fine sediment from the well.

Soil cuttings generated during drilling and soil sampling, well development water and water used to clean drilling and sampling equipment (decon water) were placed into 55-gallon drums that were sealed and stored on site. A Non-Classified Waste label was affixed to each drum pending laboratory analysis of collected soil samples.

## **6.0 POST-DRILLING ACTIVITIES**

Upon receipt of the laboratory analytical results, W&A arranged the removal of the drummed soil cuttings, and decontamination/purge water from the site for disposal by a licensed waste hauler. All drummed waste was disposed of at Crosby & Overton in Long Beach, California. Copies of the waste manifests for the transport and disposal of these materials are included in Appendix D.



## 7.0 CPT/ROST BORING AND SAMPLING ACTIVITIES

On February 24 and 25, 2003, N&M conducted Cone Penetrometer Testing with the Rapid Optical Screening Technique (CPT/ROST™) on site and off site to obtain information on the petroleum hydrocarbon product thickness and distribution in the subsurface. CPT/ROST™ locations (R-1 to R-17) are shown on Figure 4. CPT is a proven method for rapidly evaluating the physical characteristics of unconsolidated soils. It is based on the resistance to penetration of an electronic instrument (cone) that is continuously advanced into the subsurface. The electronic instrument measures tip resistance and sleeve friction in tons per square foot. The combined data from the tip resistance and sleeve friction form the basis of the soil classification (e.g., sand, silt, or clay). Hand-augered soil in the first five feet of soil revealed mostly sands or silts. CPT data indicated that between 5 and 10 feet below ground surface (bgs), the soils were also predominately sands or silts. A clay layer was generally encountered between 10 and 17 feet bgs. Mostly sand or silty soil and intermittent clay lenses were encountered between 17 and 30 feet bgs. The CPT tip was driven to approximately 34 feet bgs at most of the locations. Copies of CPT logs are included in Appendix E.

The ROST™ locations were chosen close to monitoring wells that historically had separate phase product. The most recent separate phase product thickness measurements are shown on Figure 3. Fugro Geosciences' ROST™ Laser-Induced Fluorescence system was used to screen soils for the presence of petroleum hydrocarbons. A laser light emitted by the probe is absorbed by aromatic hydrocarbons present in the soil. This addition of energy causes the aromatic hydrocarbons to fluoresce. This fluorescence is transmitted to a detection system within the CPT rig. The fluorescence intensity is reported as a percentage of a standard emission and plotted on a graph indicating the depths at which fluorescence was observed. Copies of the ROST™ logs are included in Appendix E.

Typically, a fluorescence of 100 to 150% indicates the presence of separate phase product in the soil. Lesser fluorescence values usually represent smearing in the capillary zone resulting from groundwater depth fluctuations. ROST™ locations where the fluorescence was more than 100 percent were used for redefining the lateral extent of separate phase product. These locations are shown on Figure 4. The vertical content of separate phase product at ROST™ locations that had less than 100 percent fluorescence is depicted as a zero value on Figure 4. Maximum fluorescence was observed in the one-foot thick soil layer just above the water table. Based on the ROST™ results, separate phase product in the soil was observed to

be significantly less than the separate phase product thickness measured in nearby groundwater monitoring wells. This is mainly because separate phase product from the soil tends to accumulate on the water table inside a monitoring well. The estimated extent of the separate product plume is shown on Figure 4. ROST™ results indicate the presence of more than 5 and 8 feet of product at R-2 and R-11 respectively. The reason for this unusually large thickness of hydrocarbon-impacted soil layer is not known. These anomalous results were not included in the following separate product volume calculations.

The waveforms generated from the ROST™ data indicate the type of hydrocarbons present in the subsurface. At the Lynwood Springs site, the waveforms indicate that the product is gasoline. The separate phase product thicknesses revealed by ROST™ were compared to the product thicknesses measured in the nearby groundwater monitoring wells. These comparisons are shown in Table 1. The ratio of the separate phase product thicknesses between each CPT/ROST™ boring and a nearby groundwater well ranged from 0.02 to 0.33. These ratios do not show a consistent pattern, which may be due to ongoing bailing and skimming activities being conducted at the site.

On February 26, 2003, nine soil borings (SR-2 to SR-4, SR-6 to SR-8, SR-11, SR-15, and SR-17) were advanced near selected ROST™ locations using a hydraulic push-type probe. The borings were advanced near ROST™ locations where fluorescence was observed to be more than 100%. Soil samples were collected from approximately 26 feet bgs in each of the selected borings. The soil samples were analyzed for moisture content, density, porosity, and pore-fluid saturation. The analytical results are presented in Table 2. The ratio of free-product to water in the pore fluid was used to compute the free-product volume. Calculations are presented below:

Approximate area of the plume (A)	= 125,700 square feet (sq. ft)
Separate phase product plume thickness (T)	= 1 foot
Average porosity (n)	= 42%
Average ratio of product to water (R)	= 0.103
Density of product (D)	= 49.12 lbs/cubic feet (ft <sup>3</sup> )
Volume of product	= A x T x n x R x D
	= 267,104 lbs
Assuming 6 lbs of product (gasoline) per gallon,	
Volume of separate phase product	= 44,517 gallons

## **8.0 GROUNDWATER SAMPLING AND MONITORING**

On March 17 and 21, 2003, a W&A geologist gauged, purged and sampled wells MW-4, MW-6, MW-13, MW-17, MW-19, MW-23, MW-24, MW-33, and W&A-MW-1 through W&A-MW-4. The wells were first gauged to obtain a depth-to-water reading then purged and sampled according to LARWQCB protocol. Purging consisted of removing approximately three well casing volumes of water from each well prior to collecting samples. During purging, groundwater temperature, pH and electrical conductivity were measured periodically using a field meter and recorded on Field Data Sheets. Copies of the Field Data Sheets are included in Appendix F.

Upon collection and packaging of each groundwater sample, the sample was labeled and placed on ice in a cooler for transport to a State-certified laboratory for chemical analysis. A temperature blank was also placed in each cooler for measurement of sample temperature upon receipt of the samples by the lab. The temperature blanks were labeled #5 through #8. Purge water was pumped out of the wells by a vacuum truck, manifested and transported to Crosby & Overton Waste Facility in Long Beach, California. Copies of the waste manifests for the disposal of the purged water are included in Appendix D.

Well gauging on March 21, 2003 yielded depth-to-water ranging from 22.70 feet (well W&A-MW-4) to 23.70 feet (well W&A-MW-1) below top-of-casing in the four new groundwater wells.

## **9.0 LABORATORY ANALYTICAL RESULTS**

### **9.1 Soil Analytical Results**

A total of thirty-three soil samples collected from the soil borings were transported with five temperature blanks to State-certified Jones Environmental Testing Laboratories in Fullerton, California and Sierra Analytical in Laguna Hills, California for chemical analysis. Samples chosen for laboratory analysis included samples collected from the near surface, the vadose zone, and the capillary fringe.

Packaged soil samples were subjected to the following analyses:

- EPA Method 8260B (full suite); and/or

- EPA Method 8270C (full suite); and/or
- EPA Method 6010B (lead only).

The complete analyte compound listing for both test methods 8260B and 8270C is summarized in Table 3, and the soil analytical results are presented in Tables 4 and 5 (including quality assurance duplicate sample results). Table 6 summarizes the temperature blank measurements and the analytical results of the equipment rinsates. The complete chemical soil laboratory reports are included in Appendix G. The following "High Profile" analytes were detected:

- Lead: Lead was detected in 8 out of 14 soil samples analyzed. Detected lead concentrations ranged from 1.4 mg/kg to 24 mg/kg (sample W&A-HVW1-2).
- Benzene: Benzene was detected in 19 out of 26 soil samples analyzed (including the two QA duplicates). Detected benzene concentrations ranged from 0.019 mg/kg to 150 mg/kg (soil sample W&A-HVW1-23).
- Methyl tertiary-butyl ether (MTBE)/Oxygenates: MTBE was the only oxygenate which appeared in detectable amounts. MTBE occurred in 17 out of 26 soil samples analyzed (including the two QA duplicates). Detected MTBE ranged from 0.11 mg/kg to 3,400 mg/kg (soil sample W&A-HVW1-23).
- Tetrachloroethylene (PCE): PCE was detected in 10 out of 26 soil samples analyzed (including the two QA duplicates). Detected PCE concentrations ranged from 0.0066 mg/kg to 104 mg/kg (W&A-SB2-26.5).
- Trichloroethylene (TCE): TCE was detected in 4 out of 26 soil samples analyzed (including the two QA duplicates). Detected TCE concentrations ranged from 0.0075 mg/kg to 0.046 mg/kg (soil sample W&A-SB4-11).

The other 8260/8270 analytes detected in the recent soil sampling event included Isopropylbenzene, 4-Isopropyltoluene, Naphthalene, n-Propylbenzene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, n-Butylbenzene, sec-Butylbenzene, Chloroform, 1,1,1,2-Tetrachloroethane, and n-Nitrosodi-n-propylamine (see Table 5).

All of the equipment rinsates had no detectable concentrations for all of the compounds tested (see Table 6). The temperature blanks that were transported with the soil samples had temperatures ranging from 2.7° C to 6.1° C (one of the temperature blanks was not measured by the lab).

Due to laboratory oversight, the base reporting limits for four 8270C compounds were reported at 0.2 mg/kg, which exceeds the 8270C reporting limits listed in the Sampling and Analysis Plan. Three of these compounds (Benzo(a)pyrene, Dibenzo(a,h)anthracene, and n-Nitrosodi-n-propylamine) were to have been reported at 0.02 mg/kg, and one of these compounds (Bis(2-chloroethyl)ether) was to have been reported at 0.05 mg/kg. The laboratory was notified of this discrepancy; however, the extraction holding time had been exceeded for all samples and therefore re-extraction and re-analysis was not possible.

## 9.2 Groundwater Analytical Results

A total of twelve groundwater samples and three temperature blanks were transported to State-certified Jones Environmental Testing Laboratories in Fullerton, California and Sierra Analytical in Laguna Hills, California for chemical analysis. All of the samples were subject to the following analyses:

- EPA Method 8260B (full suite); and/or
- EPA Method 6010B (lead only); and/or
- TPHg (C4-C12).

Groundwater analytical results for TPHg, benzene, toluene, ethylbenzene and total xylenes (BTEX), MTBE, lead, and other oxygenates tested are presented in Table 7. The results for the other analytes that were detected are presented in Table 8. The complete chemical groundwater laboratory report is included in Appendix H. The following "High Profile" analytes were detected:

- Lead: Lead was detected in 1 out of 8 groundwater samples analyzed. Lead at a concentration of 0.022 mg/L was detected in the sample from Well MW-24.
- TPHg: TPHg concentrations were detected in 5 out of 8 monitoring wells sampled. Detectable TPHg concentrations in groundwater samples ranged from 51 ug/L to 32,000 ug/L (groundwater well sample MW-4).
- Benzene: Benzene concentrations were detected in 5 out of 12 monitoring wells sampled. Detectable benzene concentrations in groundwater samples ranged from 4.1 ug/L to 15,000 ug/L (groundwater well sample MW-4).
- MTBE/Oxygenates: Except for one groundwater sample containing ETBE at 71 ug/L (well MW-4), MTBE was the only oxygenate which appeared in detectable amounts. MTBE occurred in 3

out of 12 groundwater samples analyzed. Detected MTBE concentrations ranged from 110 ug/L to 110,000 ug/L (groundwater well sample MW-4).

- Tetrachloroethylene (PCE): PCE was detected in 3 out of 12 groundwater samples analyzed. Detected PCE concentrations ranged from 24 ug/L to 480 ug/L (groundwater well sample MW-4).
- Trichloroethylene (TCE): TCE was detected in 7 out of 12 groundwater samples analyzed. Detected TCE concentrations ranged from 0.8 ug/L to 170 ug/L (groundwater well sample MW-4).



## **10.0 DISTRIBUTION OF CONTAMINATION**

### **10.1 Soil Contamination**

Soil analytical results for MTBE, PCE and TCE are plotted next to each soil boring location in Figure 4. MTBE, as expected, is present in elevated concentrations in unsaturated soil beneath the pump islands. It is also present at elevated concentrations in unsaturated soil at the west property line of the Garfield Express Property south of the pump islands (at boring SB-3). Two of the four vadose zone samples from borings in the east and west side of the site building contained low levels of MTBE (0.11 and 4.6 mg/kg, respectively). MTBE was also detected in capillary to saturated zone soil samples from all of the soil borings and high-vac well borings except for the sample collected at 26 feet bgs from SB-3. All four of the capillary fringe samples collected from the off-site well borings showed no detectable concentrations of MTBE.

Both PCE and TCE were detected throughout the soil column (both vadose and capillary zones) in boring SB-4 located near the southwest corner of the Garfield Express building. Farther north near the west side of the building, SB-1 contained PCE in vadose zone soils but not in the capillary fringe or saturated zone, and TCE was not found in any of those samples. PCE (and not TCE) was also detected in the saturated zone at SB-3 on the west edge of the site. All soil samples collected from the high-vac well borings at the pump islands had no detectable PCE or TCE. All four of the capillary fringe samples collected from the off-site well borings showed no detectable concentrations of PCE or TCE.

### **10.2 Groundwater Contamination**

Figures 5, 6 and 7 are site plans showing dissolved phase concentrations of MTBE, PCE and TCE, respectively, based on laboratory analytical results for the four new W&A wells and eight existing wells that were sampled by a W&A geologist. Laboratory results from other wells that had been sampled at an earlier date were also used as an aid in preparing the drawings, though that data is not shown on the drawings.

The limit of dissolved phase MTBE has been defined by prior consultants and the W&A definition of MTBE is not substantially different from prior interpretations. The limits of MTBE distribution appear to coincide with the south side of the 105 Freeway on the north, the west side of Long Beach Boulevard, Josephine Street on the south and the east property boundaries of the U-Haul property and the residential properties east of Garfield Express.

The highest concentration of dissolved phase PCE (480  $\mu\text{g/L}$ ) was found in well MW-4 located near the southwest corner of the Garfield Express Property. The lateral extent of dissolved phase PCE appears to be defined except in the north to northeast direction, and wells in those areas can be sampled in the future to further assess the north to northeast extent of PCE. The lateral limit of PCE in groundwater is roughly the same as that of MTBE though it appears to extend farther south and southeast than MTBE.

As with PCE, the highest concentration of dissolved phase TCE (170  $\mu\text{g/L}$ ) was found in well MW-4 located near the southwest corner of the Garfield Express Property. The lateral extent of dissolved phase TCE appears to be larger than that of PCE. The limit of dissolved phase TCE has been defined on the west side of the northern portion of the plume, but not south of Louise Street. The westernmost well on Louise Street had no detectable TCE and may represent the western extent of TCE contamination. To the east, MW-23 and MW-33 define the eastern limit of TCE contamination. The limit of dissolved phase TCE has not been fully defined to the north or the south due to the presence of TCE in northernmost well MW-13 and in southernmost wells W&A-MW-2 and W&A-MW-3.

## 11.0 CONCLUSIONS

Based on the most recent data collected during the completion of soil borings, well installation, CPT/ROST™, and groundwater monitoring and sampling at the proposed Lynwood Springs Retail Center, the following conclusions are made:

1. Groundwater Monitoring wells W&A-MW-1 through W&A-MW-4 were properly permitted and installed each to a depth of 45 feet bgs according to LARWQCB requirements.
2. High Vacuum wells W&A-HVW-1 through W&A-HVW-3 were properly permitted and installed each to a depth of 23 feet bgs according to LARWQCB requirements.
3. The site is underlain by interlayered silty sand and silt and lesser lean clay to the maximum drilling depth of 45 feet.
4. Depth-to-water ranged from 21.0 feet to 26.5 feet in the seven new wells.
5. Lead was detected in 8 out of 14 soil samples analyzed. Detected lead concentrations ranged from 1.4 mg/kg to 24 mg/kg (sample W&A-HVW1-2).
6. Benzene was detected in 19 out of 26 soil samples analyzed. Detected benzene concentrations ranged from 0.019 mg/kg to 150 mg/kg (soil sample W&A-HVW1-23).
7. One or more soil samples collected from each of the soil borings and high vacuum well borings completed by W&A on or just to the east of the Garfield Express Property yielded detectable levels of MTBE. The highest MTBE concentrations were found in the vicinity of the pump islands. No MTBE was detected on the capillary fringe of the four W&A off-site well borings.
8. TCE and/or PCE were detected in one or more of the soil samples collected from the four W&A soil borings. The highest PCE concentration was 104 mg/kg at 26.5 feet bgs (in groundwater) in W&A-SB-2 on the east side of the Garfield Express building (TCE was not present in that sample). The highest TCE concentration was 5.8 mg/kg at 26 feet bgs (in groundwater) in W&A-SB-3 on the west edge of the Garfield Express Property (PCE was not

present in that sample). None of the soil samples collected from either the high vacuum well borings or the off-site groundwater well borings contained detectable levels of PCE or TCE.

9. MTBE was detected in 3 out of the 12 groundwater samples that were collected by W&A. The highest MTBE concentration was 110,000 µg/L in well MW-4. No BTEX, MTBE or additional oxygenates were detected in any of the off-site W&A groundwater wells except for a benzene concentration of 4.1 µg/L in W&A-MW-2.
10. Three of the 12 groundwater samples (from MW-4, MW-23 and MW-33) contained detectable concentrations of PCE, with a maximum concentration of 480 µg/L in MW-4. TCE was detected in seven samples (including three from the W&A wells), with a maximum concentration 170 µg/L in well MW-4.
11. Elevated levels of MTBE were found in unsaturated, capillary and saturated zone samples near the pump islands. Two of the four vadose zone samples from borings in the east and west side of the site building contained low levels of MTBE. All four of the capillary fringe samples collected from the off-site well borings showed no detectable concentrations of MTBE.
12. Both PCE and TCE were detected throughout the soil column (both vadose and capillary zones) in boring SB-4 located near the southwest corner of the Garfield Express building. Boring SB-1 contained PCE in vadose zone soils but not in the capillary fringe or saturated zone and TCE was not found in any of those samples. PCE (and not TCE) was also detected in the saturated zone at SB-3 on the west edge of the Garfield Express Property. All soil samples collected from the high-vac well borings at the pump islands had no detectable PCE or TCE. All four of the capillary fringe samples collected from the off-site well borings showed no detectable concentrations of PCE or TCE.
13. The limits of dissolved phase MTBE appear to coincide with the south side of the 105 Freeway on the north, the west side of Long Beach Boulevard, Josephine Street on the south and the east property boundaries of the U-Haul Property and the residential properties east of the Garfield Express Property.

14. The lateral extent of dissolved phase PCE appears to be defined except in the north to northeast direction and is roughly the same as that of MTBE though it appears to extend further south and southeast than MTBE.
15. The limit of dissolved phase TCE has been defined on the west side of the northern portion of the plume, but not south of Louise Street. To the east, MW-23 and MW-33 define the eastern limit of TCE contamination. The limit of dissolved phase TCE has not been fully defined to the north or the south due to the presence of TCE in northernmost well MW-13 and in southernmost wells W&A-MW-2 and W&A-MW-3.
16. CPT/ ROST™ was conducted on the site to obtain information regarding the petroleum hydrocarbon product thickness and distribution in the subsurface. The separate phase product impact on the soil was noted to exist predominately in a one-foot thick soil layer just above the water table. The thickness of separate phase product in the soil was observed to be much less than the separate phase product measured in nearby wells. Approximately 44,500 gallons of separate phase product was estimated to be present at the site.

## 12.0 LIMITATIONS

Drilling, soil sampling and well installation were performed by or under the supervision of a W&A California Registered Geologist or an N&M Professional Engineer. All data presented in this report was reviewed by a W&A California Registered Geologist and N&M Professional Engineer for correctness. The conclusions contained in this report were based in part on direct observation by W&A and N&M scientists and in part on data provided by other consultants to the Garfield Express Property owner. Conclusions were based on currently available information and were arrived at in accordance with currently accepted hydrogeologic practices at a discrete time and location. No other warranty was implied or intended.

## TABLES



**TABLE 1**  
**CPT/ROST PRODUCT THICKNESS RESULTS**  
**PROPOSED LYNWOOD SPRINGS RETAIL CENTER, LYNWOOD, CALIFORNIA**

ROST Location	Date	Free Product Thickness (feet)		Monitoring Well	Product to Moisture Ratio
		ROST	In Well Monitoring		
R-1	01/10/03	0	3.43 *	MW-11	0.00
R-2	01/10/03	5	3.43 *	MW-11	1.46
R-3	06/26/02	1	8.54	MW-9	0.12
R-4	01/10/03	1	7.43 *	MW-14	0.13
R-5	01/10/03	0	6.44 *	MW-22	0.00
R-6	06/26/02	1	8.54	MW-9	0.12
R-7	06/26/02	4	0.09	MW-2	44.44
R-8	06/26/02	0	0.00	MW-4	0.00
R-9	06/26/02	0	0.00	MW-4	0.00
R-10	01/10/03	0	5.12 *	MW-12	0.00
R-11	01/10/03	8	10.81 *	MW-15	0.74
R-12	06/26/02	0	0.00	MW-23	0.00
R-13	06/26/02	0	0.00	MW-23	0.00
R-14	06/26/02	0	0.00	MW-21	0.00
R-15	06/26/02	1	9.61	MW-16	0.10
R-16	06/26/02	0	0.00	MW-24	0.00
R-17	06/26/02	1	0.00	MW-24	0.00

Notes:

ROST data dated February 24 and 25, 2003.

Separate Phase Product measured on 6/26/02.

\*Separate Phase Product measured on 1/10/03.

**Table 2**  
**CPT/ROST Physical Properties Data**  
**Proposed Lynwood Springs Retail Center, Lynwood, California**

Sample ID	Depth (ft.)	Density		Porosity		Pore Fluid Saturation, %		Ratio of Free Product to Water
		Bulk	Grain	Total	Air Filled	Water	NAPL	
SR-2	23	1.46	2.73	46.4	12.0	74.8	ND	0.00
SR-3	25	1.61	2.70	40.3	8.9	58.5	19.4	0.33
SR-4	19	1.54	2.75	44.0	8.1	80.8	ND	0.00
SR-6	27	1.44	2.73	47.1	1.6	94.4	2.3	0.02
SR-7	28	1.60	2.72	41.3	9.9	69.1	6.8	0.10
SR-8	26	1.56	2.68	41.8	10.9	60.7	13.2	0.22
SR-11	23	1.48	2.70	45.1	10.9	71.6	4.2	0.06
SR-15	27	1.41	2.70	48.0	17.7	57.1	6.0	0.11
SR-17	36	1.42	2.67	46.7	23.2	41.5	8.9	0.21
Average				44.9	Average			0.10

**TABLE 3**  
**LIST OF COMPOUNDS ANALYZED BY EPA 8260B AND 8270**

8260B		8270	
Benzene	Hexachlorobutadiene	Acenaphthene	4,6-Dinitro-2 methylphenol
Bromodichloromethane	Isopropylbenzene	Acenaphthylene	2,4-Dinitrotoluene
Bromoform	4-Isopropyltoluene	Anthracene	2,6-Dinitrotoluene
Bromomethane	Methylene chloride	Benidine	Di-n-octyl phthalate
n-Butylbenzene	Naphthalene	Benzo (a) anthracene	1,2-Diphenylhydrazine
sec-Butylbenzene	n-Propylbenzene	Benzo (b) fluoranthene	Fluoranthene
tert-Butylbenzene	Isopropyltoluene	Benzo (k) fluoranthene	Fluorene
Carbon tetrachloride	Methyl tert-Butyl Ether	Benzo (a) pyrene	Hexachlorobenzene
Chlorobenzene	4-Methyl-2-pentanone	Benzo (g,h,i) perylene	Hexachlorobutadiene
Chloroethane	Styrene	Benzyl Alcohol	Hexachlorocyclopentadiene
Chloroform	1,1,1,2-Tetrachloroethane	Bis(2-chloroethyl)ether	Hexachloroethane
Chloromethane	1,1,2,2,-Tetrachloroethane	Bis(2-chloroethoxy)methane	Indeno (1,2,3-cd) pyrene
2-Chlorotoluene	Tetrachloroethylene	Bis(2-ethylhexyl)phthalate	Isophorone
4-Chlorotoluene	Toluene	Bis(2-chloroisopropyl)ether	2-Methylnaphthalene
Dibromochloromethane	1,2,3-Trichlorobenzene	4-Bromophenyl phenyl ether	2-Methylphenol
1,2-Dibromo-3-chloropropane	1,2,4-Trichlorobenzene	Butyl benzyl phthalate	4-Methylphenol
1,2-Dibromoethane (EDB)	1,1,1-Trichloroethane	4-Chloroaniline	Naphthalene
Dibromomethane	1,1,2-Trichloroethane	2-Chlorophenol	2-Nitroaniline
1,2-Dichlorobenzene	Trichloroethylene	4-Chloro-3-methylphenol	3-Nitroaniline
1,3-Dichlorobenzene	Trichlorofluoromethane	2-Chloronaphthalene	4-Nitroaniline
1,4-Dichlorobenzene	1,2,3-Trichloropropane	4-Chlorophenyl phenyl ether	Nitrobenzene
Dichlorodifluoromethane	1,2,4-Trimethylbenzene	Chrysene	2-Nitrophenol
1,1-Dichloroethane	1,3,5-Trimethylbenzene	Dibenz (a,h) anthracene	4-Nitrophenol
1,2-Dichloroethane	Vinyl chloride	Dibenzofuran	N-Nitrosodimethylamine
1,1-Dichloroethene	Xylenes	1,3-Dichlorobenzene	N-Nitrosodiphenylamine
cis-1,2-Dichloroethene	Methyl tert-butylether (MTBE)	1,2-Dichlorobenzene	N-Nitrosodi-n-propylamine
trans-1,2-Dichloroethene	Ethyl-tert-butylether	1,4-Dichlorobenzene	Pentachlorophenol
1,2-Dichloropropane	Di-isopropylether	3,3-Dichlorobenzidine	Phenanthrene
1,3-Dichloropropane	tert-amylmethylether	2,4-Dichlorophenol	Phenol
2,2-Dichloropropane	tert-Butylalcohol	Diethyl phthalate	Pyrene
1,1-Dichloropropene		2,4-Dimethylphenol	1,2,4-Trichlorobenzene
cis-1,3-Dichloropropene		Dimethyl phthalate	2,4,5-Trichlorophenol
trans-1,3-Dichloropropene		Di-n-butyl phthalate	2,4,6-Trichlorophenol
Ethylbenzene		2,4-Dinitrophenol	

**Table 4**  
**Summary of Soil Analytical Results**  
**for BTEX, MTBE, Additional Oxygenates and Lead**  
**Proposed Lynwood Springs Retail Center, Lynwood, California**

Sample ID with Depth	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	ETBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Lead (mg/kg)
<b>Soil Borings Completed by Winefield &amp; Associates</b>											
W&ASB1-1	03/04/03	--	--	--	--	--	--	--	--	--	13
W&ASB1-5.5	03/04/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--
W&ASB1-10.5	03/04/03	0.1 U	0.1 U	0.1 U	0.1 U	0.11	0.1 U	0.1 U	0.1 U	0.1 U	--
W&ASB1-20.5	03/04/03	12	54	6	25	620	0.82 U	0.82 U	0.82 U	0.82 U	--
W&ASB1-25.5	03/04/03	20	94	22	55	540	1 U	1 U	1 U	1 U	--
W&ASB1-25.5D*	03/04/03	15	72	16	44	540	0.72 U	0.72 U	0.72 U	0.72 U	--
W&ASB2-2.5	03/03/03	--	--	--	--	--	--	--	--	--	4.1
W&ASB2-6.5	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--
W&ASB2-11.5	03/03/03	0.12	0.002	0.002 U	0.093	4.6	0.002 U	0.002 U	0.002 U	0.002 U	--
W&ASB2-26	03/03/03	--	--	--	--	--	--	--	--	--	2.8 U
W&ASB2-26.5	03/03/03	74	443	11.3	404	307	2 U	2 U	2 U	2 U	--
W&ASB2-26.5D*	03/03/03	41	245	60	227	240	2 U	2 U	2 U	2 U	--
W&ASB3-1	03/03/03	--	--	--	--	--	--	--	--	--	11
W&ASB3-6	03/03/03	0.18	0.37	0.039	0.46	37	0.002 U	0.002 U	0.002 U	0.002 U	--
W&ASB3-11	03/03/03	0.13	0.23	0.002 U	0.19	32.3	0.002 U	0.002 U	0.002 U	0.002 U	--
W&ASB3-26	03/03/03	53.9	20.8	57.7	187	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	2.8 U
W&ASB4-11	03/03/03	0.019	0.002 U	0.002	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	--
W&ASB4-21	03/03/03	0.1	0.17	0.058	0.12	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	3.4
W&ASB4-26	03/03/03	2.3	3	0.12	0.81	0.24	0.002 U	0.002 U	0.002 U	0.002 U	2.8 U

**Table 4**  
**Summary of Soil Analytical Results**  
**for BTEX, MTBE, Additional Oxygenates and Lead**  
**Proposed Lynwood Springs Retail Center, Lynwood, California**

Sample ID with Depth	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	ETBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Lead (mg/kg)
<b>Groundwater Monitoring Wells Installed by Winefield &amp; Associates</b>											
W&AMW1-26	02/10/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	1.3 U
W&AMW2-20.5	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	3.5
W&AMW3-1	02/10/03	--	--	--	--	--	--	--	--	--	1.4 U
W&AMW3-25	02/11/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	1.4
W&AMW4-25	02/10/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	1.4
<b>High Vacuum Wells Installed by Winefield &amp; Associates</b>											
W&AHVW1-2	3/4/2003	--	--	--	--	--	--	--	--	--	24
W&AHVW1-6	03/04/03	16	180	46	250	720	0.74 U	0.74 U	0.74 U	0.74 U	--
W&AHVW1-11	03/04/03	16	90	43	150	1,800	8.6 U	8.6 U	8.6 U	8.6 U	--
W&AHVW1-23	03/04/03	150	1,000	200	680	3,400	7.8 U	7.8 U	7.8 U	7.8 U	--
W&AHVW2-22	03/03/03	27	357	13	330	445	0.4 U	0.4 U	0.4 U	0.4 U	--
W&AHVW3-2.5	03/04/03	--	--	--	--	--	--	--	--	--	2.8 U
W&AHVW3-6	03/04/03	73	240	33	150	410	7.2 U	7.2 U	7.2 U	7.2 U	--
W&AHVW3-11	03/04/03	3.9	11	4 U	7.1	850	4 U	4 U	4 U	4 U	--
W&AHVW3-22.5	03/04/03	110	430	90	270	2,300	4 U	4 U	4 U	4 U	--

**Notes:**

BTEX = benzene toluene, ethylbenzene, and xylenes (EPA method 8260)

DIPE = di-isopropyl ether (EPA method 8260)

EPA = US Environmental Protection Agency

ETBE = ethyl tert-butyl ether (EPA method 8260)

mg/kg = milligrams per kilogram

MTBE = methyl tertiary-butyl ether (EPA method 8260)

TBA = tert-butanol (EPA method 8260)

U = not detected at or above the stated reporting limit

-- = not sampled

\* = duplicate soil sample

**Table 5**  
**Soil Sampling Results - Selected Aromatic and Chlorinated Hydrocarbons**  
**Proposed Lynwood Springs Retail Center, Lynwood, California**

Sample ID with Depth	Sample Date	n-Butylbenzene (mg/kg)	sec-Butylbenzene (mg/kg)	Chloroform (mg/kg)	Isopropylbenzene (mg/kg)	4-Isopropyltoluene (mg/kg)	Naphthalene <sup>1</sup> (mg/kg)	n-Propylbenzene (mg/kg)	1,1,1,2-Tetrachloroethane (mg/kg)	Tetrachloroethylene (mg/kg)	Trichloroethylene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	N-Nitrosodi-n-propylamine (mg/kg)
<b>Soil Borings Completed by Winefield &amp; Associates</b>														
w	03/04/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.044	0.002 U	0.002 U	0.002 U	—
W&ASB1-6	03/04/03	—	—	—	—	—	1 U <sup>2</sup>	—	—	—	—	—	—	0.2 U <sup>2</sup>
W&ASB1-10.5	03/04/03	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U <sup>1</sup>	0.1 U	0.1 U	0.013	0.1 U	0.1 U	0.1 U	—
W&ASB1-11	03/04/03	—	—	—	—	—	1 U <sup>2</sup>	—	—	—	—	—	—	0.2 U <sup>2</sup>
W&ASB1-20.5	03/04/03	0.82 U	0.82 U	0.82 U	0.24	0.076	0.82 U <sup>1</sup>	20	0.82 U	0.82 U	0.82 U	52.5	20.9	—
W&ASB1-25.5	03/04/03	1 U	1 U	1 U	1 U	1 U	6.1 <sup>2</sup>	26	1 U	1 U	1 U	71.8	33.6	0.2 U <sup>2</sup>
W&ASB1-25.5D*	03/04/03	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.89 <sup>1</sup>	18	0.72 U	0.72 U	0.72 U	79.9	38.7	—
W&ASB2-6.5	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.0066	0.002 U	0.002 U	0.002 U	—
W&ASB2-11.5	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.013	0.002 U	0.036	0.0075	0.025	0.025	—
W&ASB2-26.5	03/03/03	2 U	2 U	2 U	1.7 J	2 U	16 <sup>1</sup>	35	2 U	104	2 U	240	240	—
W&ASB2-26.5D*	03/03/03	2 U	2 U	2 U	2 U	2 U	7.1 <sup>1</sup>	22	2 U	53.9	2 U	136	136	—
W&ASB3-6	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.036 <sup>1</sup>	0.03	0.002 U	0.002 U	0.002 U	0.27	0.27	0.2 U <sup>2</sup>
W&ASB3-11	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.033	0.002 U	0.002 U	0.002 U	0.18	0.18	0.2 U <sup>2</sup>
W&ASB3-26	03/03/03	0.8 U	0.8 U	0.8 U	2.3	1.4	5.1 <sup>1</sup>	14.3	0.8 U	5.8	0.8 U	103	103	—
W&ASB4-11	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.49	0.046	0.003 U	0.002 U	—
W&ASB4-21	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.02	0.002 U	0.2	0.035	0.043	0.043	—
W&ASB4-26	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.017 <sup>1</sup>	0.029	0.002 U	0.051	0.013	0.18	0.18	—
<b>Groundwater Monitoring Wells Installed by Winefield &amp; Associates</b>														
W&AMW1-26	02/10/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	—
W&AMW2-20.5	03/03/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	—
W&AMW3-25	02/11/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	—
W&AMW4-25	02/10/03	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U <sup>1</sup>	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	—
<b>High Vacuum Wells Installed by Winefield &amp; Associates</b>														
W&AHVW1-6	03/04/03	0.74 U	0.81	0.13	3.5	2.3	10 <sup>1</sup>	13	0.74 U	0.74 U	0.74 U	218	413	0.2 U <sup>2</sup>
W&AHVW1-11	03/04/03	8.6 U	8.6 U	8.6 U	1.6	8.6 U	10 <sup>1</sup>	12	8.6 U	8.6 U	8.6 U	244	220	3.1 U <sup>2</sup>
W&AHVW1-23	03/04/03	7.8 U	6.1	9.1	23	13	7.8 U <sup>1</sup>	200	7.8 U	7.8 U	7.8 U	828	391	0.2 U <sup>2</sup>
W&AHVW3-22	03/03/03	0.4 U	0.32	0.4 U	2.5	1.5	6.7 <sup>1</sup>	11.5	0.4 U	0.4 U	0.4 U	189	189	—
W&AHVW3-6	03/04/03	3.5	5.1	7.2 U	13	11	24 <sup>1</sup>	170	7.9	7.2 U	7.2 U	590	244	0.2 U <sup>2</sup>
W&AHVW3-11	03/04/03	4 U	4 U	4 U	4 U	4 U	5.6 <sup>1</sup>	1.6	4 U	4 U	4 U	63	30.4	0.2 U <sup>2</sup>
W&AHVW3-22.5	03/04/03	4 U	3.6	5	12	8.6	75 <sup>1</sup>	46	4 U	4 U	4 U	75.5	117	—

**Notes:**

1 = result determined by EPA 8260B

2 = result determined by EPA 8270C

3 = In some cases, naphthalene was analyzed by both EPA 8260B and EPA 8270C. If the data quality for both analyses met the QC acceptance criteria, the detected result was reported. If the data quality for both analyses met the QC acceptance criteria and both had detectable results, the greater of the two results was reported. If the results for both samples were non-detectable, the result with the lowest reporting limit was reported.

BTEX = benzene, toluene, ethylbenzene, and xylene (EPA method 8260)

DIPE = di-isopropyl ether (EPA method 8260)

EPA = US Environmental Protection Agency

ETBE = ethyl tert-butyl ether (EPA method 8260)

J = estimated value

mg/kg = milligrams per kilogram

MTBE = methyl tertiary-butyl ether (EPA method 8260)

TBA = tert-butanol (EPA method 8260)

U = not detected at or above the stated reporting limit

UJ = not detected at or above the stated, estimated reporting limit

— = not sampled

\* = duplicate soil sample



**Table 6**  
**Equipment Rinsate and Temperature Blank Results**  
**Proposed Lynwood Springs Retail Center, Lynwood, California**

Sample ID with Depth	Sample Date	EPA 8260B									EPA 200	Temperature (°C)
		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Lead (µg/L)	
Temperature Blank												
#1	02/10/03	--	--	--	--	--	--	--	--	--	--	5.8
#2	02/11/03	--	--	--	--	--	--	--	--	--	--	5.6
#3	03/03/03	--	--	--	--	--	--	--	--	--	--	2.7
#4	03/04/03	--	--	--	--	--	--	--	--	--	--	NM
#5	03/18/03	--	--	--	--	--	--	--	--	--	--	6.1
#6	03/18/03	--	--	--	--	--	--	--	--	--	--	4.8
#7	03/18/03	--	--	--	--	--	--	--	--	--	--	4.8
#8	03/21/03	--	--	--	--	--	--	--	--	--	--	3.1
Equipment Rinsate Samples												
W&A-ER-1	02/10/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--	--
W&A-ER-2	02/11/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	20 U	--
W&A-ER-3	03/03/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	20 U	--
W&A-ER-4	03/04/03	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	20 U	--

Notes:

BTEX = benzene toluene, ethylbenzene, and xylenes

DIPE = di-isopropyl ether

ETBE = ethyl tert-butyl ether

MTBE = methyl tertiary-butyl ether

NM = laboratory did not record temperature

TBA = tert-butanol

U = not detected at the stated reporting limit

µg/L = micrograms per liter

°C = degrees celsius

-- = not sampled or measured

TABLE 7  
GROUNDWATER MONITORING AND ANALYTICAL RESULTS - MARCH, 2003  
FOR TPHg, BTEX, MTBE, AND ADDITIONAL OXYGENATES  
PROPOSED LYNWOOD SPRINGS PROPERTY  
11600 LONG BEACH BLVD, LYNWOOD

Well Number <sup>1</sup>	Sample Date	Wellhead Elevation <sup>2</sup>	Depth to Water <sup>3</sup> (feet)	Total Depth (feet)	GW Elevation <sup>4</sup> (feet)	EPA 8260B												EPA 200
						TPHg (C4-C12) (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	EDC (µg/L)	Lead (mg/L)
MW-4	03/17/03	81.88	23.96	43.44	57.92	32,000	15,000	450	95	51	110,000	0.5 U	71	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
MW-6	03/17/03	81.27	22.85	41.02	58.42	50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
MW-13	03/17/03	85.37	23.77	44.30	61.60	50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
MW-17	03/17/03	83.53	22.95	43.77	60.58	50 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
MW-19	03/17/03	84.50	23.2	41.28	61.30	4,000	1,300	600	370	210	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
MW-23	03/17/03	83.34	22.40	44.50	60.94	2,300	280	22	61	0.5 U	3,700	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
MW-24	03/17/03	83.14	23.10	41.59	60.04	51	0.5 U	12	1.2	25	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.022
MW-33	03/17/03	83.20	22.05	43.60	61.15	3,000	1,200	85	14	0.5 U	110	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.02 U
W&A-MW-1	03/21/03	--	23.70	44.85	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--
W&A-MW-2	03/21/03	--	23.58	44.88	--	--	4.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--
W&A-MW-3	03/21/03	--	23.12	44.90	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--
W&A-MW-4	03/21/03	--	22.70	44.89	--	--	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	--

Notes:

1 = All groundwater monitoring and sampling conducted by Winefield & Associates.

2 = Wellhead elevations resurveyed on 1/11/00.

3 = Depth to water measured in feet from top of casing.

4 = Groundwater elevation in feet above mean sea level.

C4 = butane

C12 = dodecane

DIPE = di-isopropyl ether

EDB = ethylene dibromide or 1,2 dibromoethane

EDC = 1,2 dichloroethane (1,2 DCA)

ETBE = ethyl tert-butyl ether

mg/L = milligrams per liter

MTBE = methyl-tertiary-butyl ether

TAME = tert-amyl methyl ether

TBA = tert-butanol

TPHg = total petroleum hydrocarbons characterized as gasoline

U = not detected at or above the stated reporting limit

µg/L = micrograms per liter

-- = not sampled/measured or not applicable

**TABLE 8**  
**GROUNDWATER MONITORING RESULTS - SELECTED AROMATICS AND CHLORINATED HYDROCARBONS, MARCH, 2003**  
**PROPOSED LYNWOOD SPRINGS PROPERTY**  
**11600 LONG BEACH BLVD, LYNWOOD**

Well Number <sup>1</sup>	EPA 8260B						
	n-Butylbenzene (µg/L)	sec-Butylbenzene (µg/L)	tert-Butylbenzene (µg/L)	4-Chlorotoluene (µg/L)	cis-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Isopropylbenzene (µg/L)
MW-4	29	16	0.5 U	16	0.5 U	0.5 U	24
MW-6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-13	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-17	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	16	0.5 U
MW-19	44	18	17	24	0.5 U	0.5 U	35
MW-23	19	16	0.5 U	0.5 U	0.5 U	0.5 U	14
MW-24	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-33	22	16	0.5 U	14	0.5 U	0.5 U	18
W&A-MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
W&A-MW-2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
W&A-MW-3	0.5 U	0.5 U	0.5 U	0.5 U	17	0.5 U	0.5 U
W&A-MW-4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Well Number <sup>1</sup>	EPA 8260B						
	4-Isopropyltoluene (µg/L)	Naphthalene (µg/L)	n-Propylbenzene (µg/L)	Tetrachloroethylene (µg/L)	Trichloroethylene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)
MW-4	0.5 U	41	38	480	170	16	40
MW-6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13
MW-13	0.5 U	0.5 U	0.5 U	0.5 U	28	0.5 U	15
MW-17	0.5 U	0.5 U	0.5 U	0.5 U	24	0.5 U	0.5 U
MW-19	17	50	120	0.5 U	0.5 U	18	90
MW-23	0.5 U	0.5 U	26	24	0.5 U	0.5 U	27
MW-24	0.5 U	0.5 U	0.5 U	52	24	0.5 U	0.5 U
MW-33	0.5 U	0.5 U	30	0.5 U	0.5 U	16	26
W&A-MW-1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
W&A-MW-2	0.5 U	0.5 U	0.5 U	0.5 U	26	0.5 U	0.5 U
W&A-MW-3	0.5 U	0.5 U	0.5 U	0.5 U	49	0.5 U	0.5 U
W&A-MW-4	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.5 U	0.5 U

**Notes:**

1 = All groundwater monitoring and sampling conducted by Winefield & Associates.

DIPE = di-isopropyl ether

EDB = ethylene dibromide or 1,2 dihalomethane

EDC = 1,2 dichloroethane (1,2 DCA)

EPA = US Environmental Protection Agency

ETBE = ethyl tert-butyl ether

MTBE = methyl-tertiary-butyl ether

TAME = tert-amyl methyl ether

TBA = tert-butanol

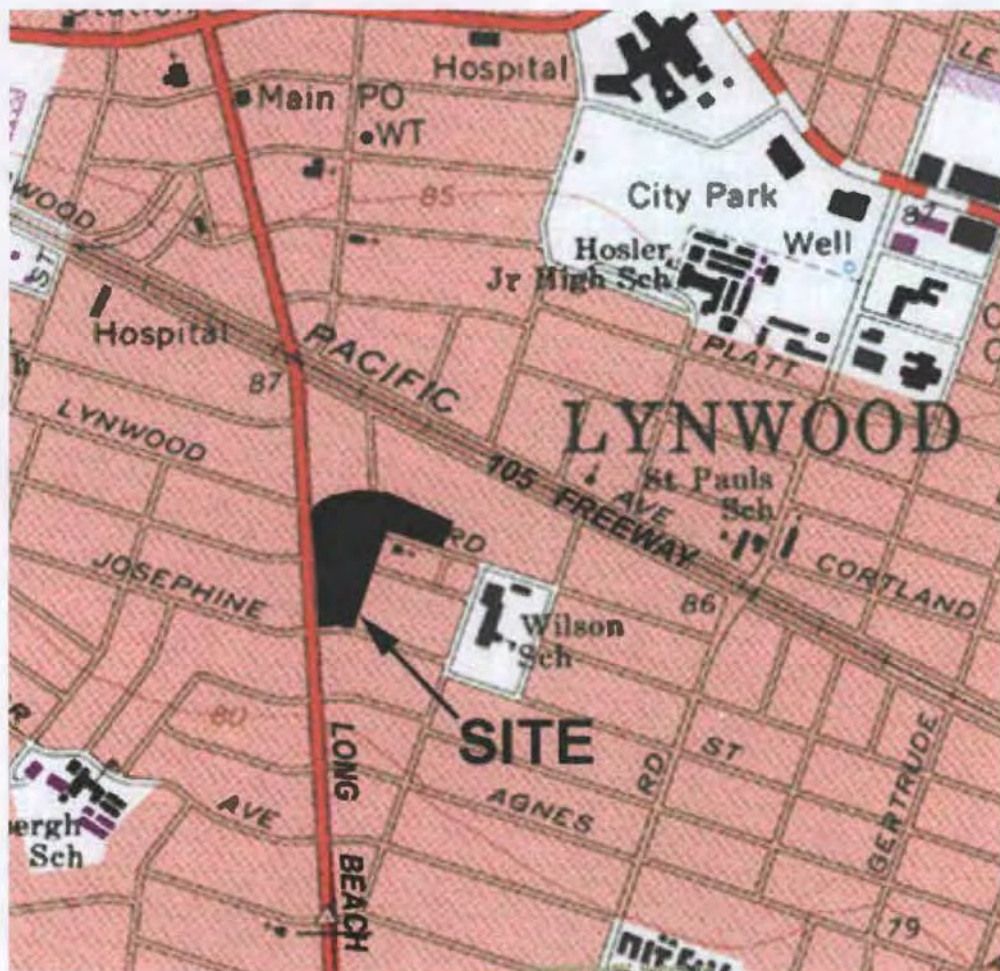
TPHg = total petroleum hydrocarbons characterized as gasoline

U = not detected at or above the stated reporting limit

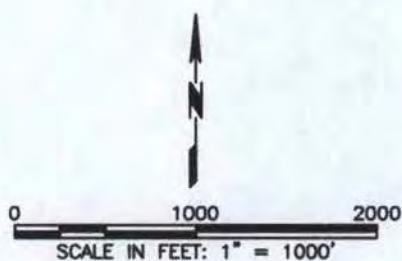
µg/L = micrograms per liter

-- = not sampled/measured or not applicable

## FIGURES



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, SOUTH GATE QUADRANGLE  
LOS ANGELES COUNTY, CALIFORNIA



**WINEFIELD & ASSOCIATES**  
ENVIRONMENTAL AND SAFETY CONSULTANTS

DESCRIPTION

**SITE LOCATION MAP**

LOCATION

**LYNWOOD SPRINGS DEVELOPMENT  
LYNWOOD, CALIFORNIA**

JOB NO.

LYN-02-201

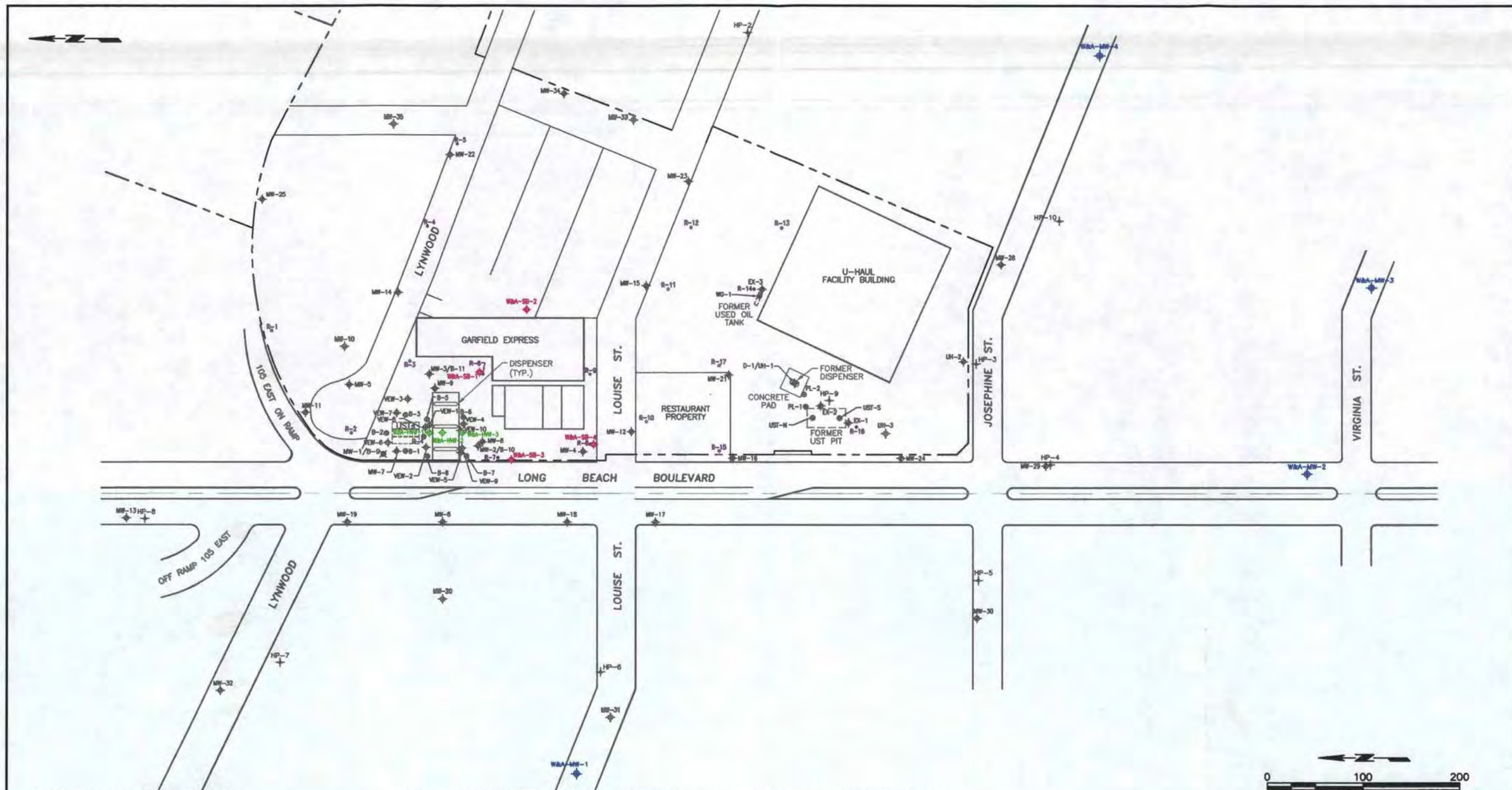
DATE

04/03

FIGURE NO.

1





#### GENERAL SITE PLAN LEGEND

- SITE PROPERTY/PARCEL BOUNDARY LINE
- ◆ GROUNDWATER MONITORING WELL
- ✖ ABANDONED GROUNDWATER MONITORING WELL
- ◆ SOIL VAPOR EXTRACTION WELL
- SOIL BORING LOCATION
- ✚ HYDROPUNCH LOCATION
- ◆ GROUNDWATER MONITORING WELL (INSTALLED FEBRUARY AND MARCH, 2003)

#### GENERAL SITE PLAN LEGEND, CONTINUED

- ◆ SOIL BORING (INSTALLED FEBRUARY AND MARCH, 2003)
- ◆ HIGH-VACUUM WELL (INSTALLED FEBRUARY AND MARCH, 2003)
- R-17 ROST LOCATION (INSTALLED FEBRUARY 24 AND 25, 2003) MEASURED PEAK FLUORESCENCE

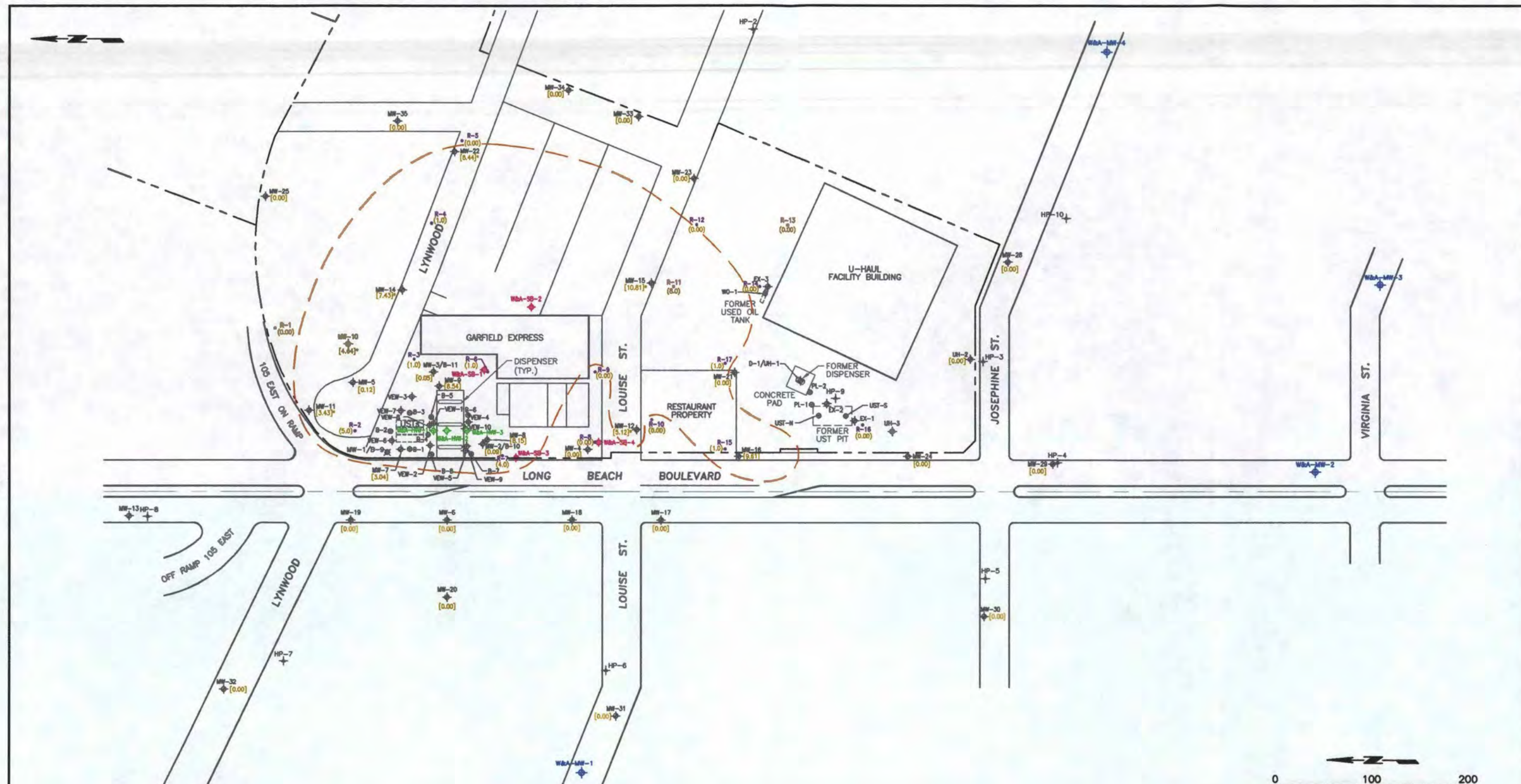
#### GENERAL SITE PLAN NOTE:

1. ALL LOCATIONS ARE APPROXIMATE AND WERE SCALED FROM PRIOR SITE MAPS.
2. SOURCE OF BASE MAP: SURVEYED SITE PLAN PREPARED BY WEST PACIFICA DESIGN FOR PRIMESTOR DEVELOPMENT, INC.



DESCRIPTION	SITE PLAN SHOWING SOIL BORING AND WELL LOCATIONS		
LOCATION	LYNWOOD SPRINGS DEVELOPMENT LYNWOOD, CALIFORNIA		
JOB NO. LYN-02-201	DATE 04/03	FIGURE NO. 2	





#### GENERAL SITE PLAN LEGEND

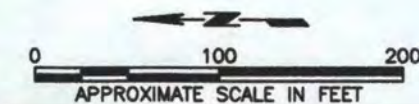
- SITE PROPERTY/PARCEL BOUNDARY LINE
- ◆ GROUNDWATER MONITORING WELL
- ✖ ABANDONED GROUNDWATER MONITORING WELL
- ◆ SOIL VAPOR EXTRACTION WELL
- SOIL BORING LOCATION
- ⊕ HYDROPUNCH LOCATION
- ◆ GROUNDWATER MONITORING WELL (INSTALLED FEBRUARY AND MARCH, 2003)
- ◆ HIGH-VACUUM WELL (INSTALLED FEBRUARY AND MARCH, 2003)

#### GENERAL SITE PLAN LEGEND, CONTINUED

- ◆ SOIL BORING (INSTALLED FEBRUARY AND MARCH, 2003)
- R-17 ROST LOCATION (INSTALLED FEBRUARY 24 AND 25, 2003) MEASURED PEAK FLUORESCENCE
- INTERPRETED EXTENT OF SEPARATE PHASE PRODUCT IN SOIL (DASHED WHERE INFERRED)
- (8.00) SEPARATE PHASE PRODUCT THICKNESS IN SOIL MEASURED IN FEET ON FEBRUARY 24 AND 25, 2003
- [10.81]\* SEPARATE PHASE PRODUCT THICKNESS IN WELLS MEASURED IN FEET ON [JANUARY 10, 2003]\* AND [JUNE 26, 2002]

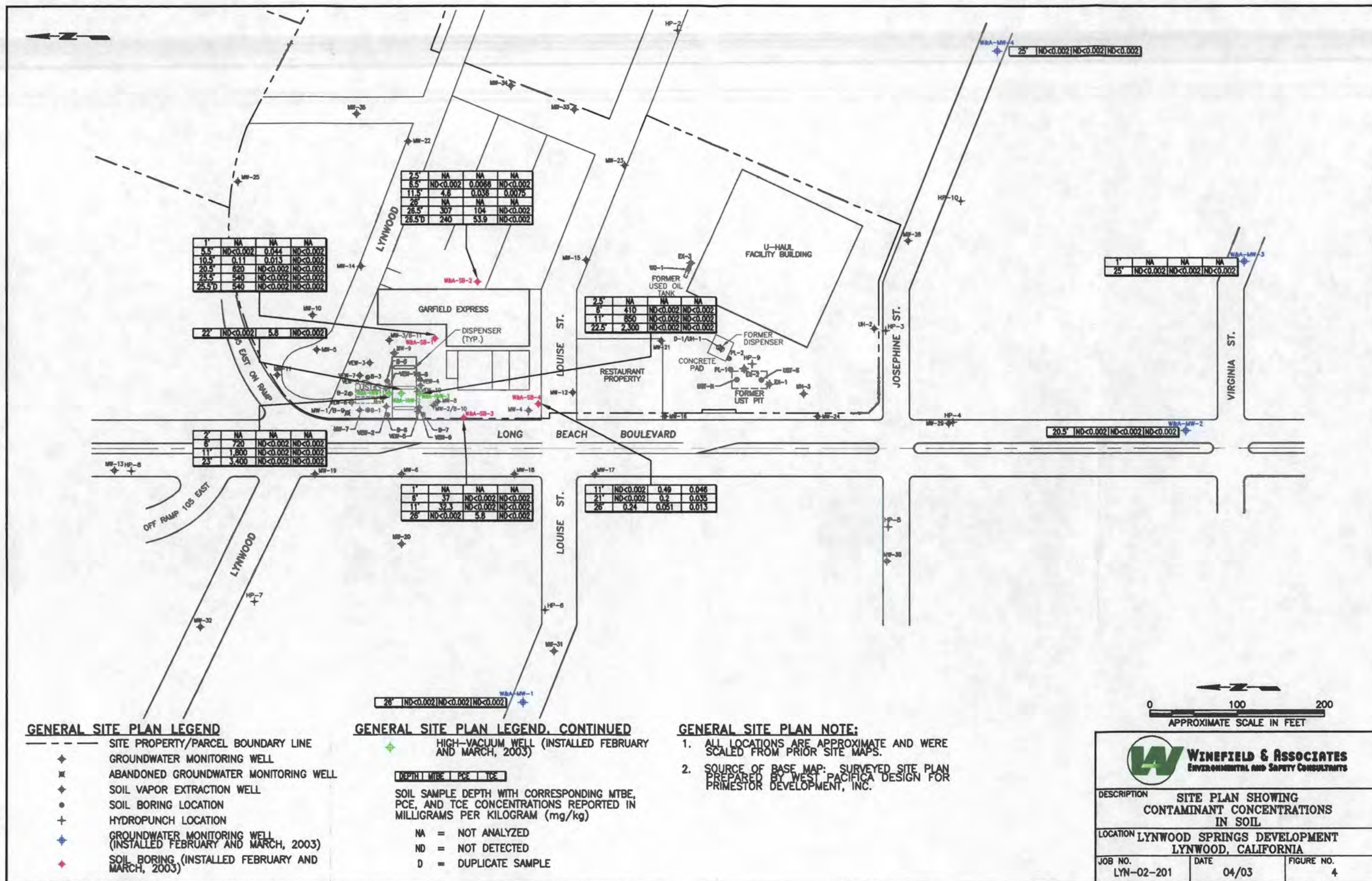
#### GENERAL SITE PLAN NOTE:


1. ALL LOCATIONS ARE APPROXIMATE AND WERE SCALED FROM PRIOR SITE MAPS.
2. SOURCE OF BASE MAP: SURVEYED SITE PLAN PREPARED BY WEST PACIFICA DESIGN FOR PRIMESTOR DEVELOPMENT, INC.
3. DATA FROM WELLS SAMPLED BY OTHER CONSULTANTS REVIEWED TO ASSIST IN CONTOURING. THIS PLAN PRESENTS ONE INTERPRETATION, OTHER INTERPRETATIONS ARE POSSIBLE.



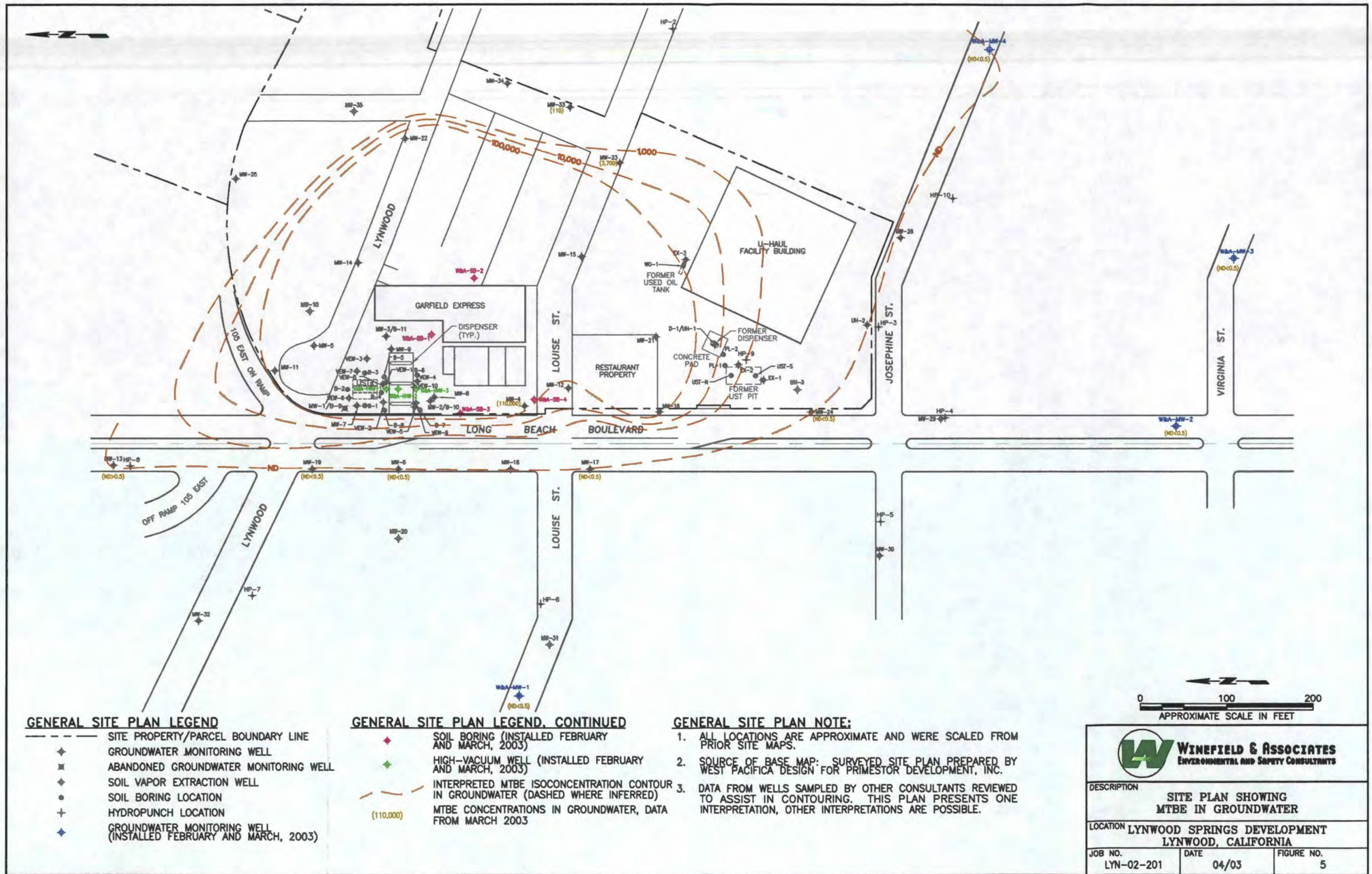
DESCRIPTION SITE PLAN SHOWING PRODUCT THICKNESS IN SOIL		
LOCATION LYNWOOD SPRINGS DEVELOPMENT LYNWOOD, CALIFORNIA		
JOB NO. LYN-02-201	DATE 04/03	FIGURE NO. 3



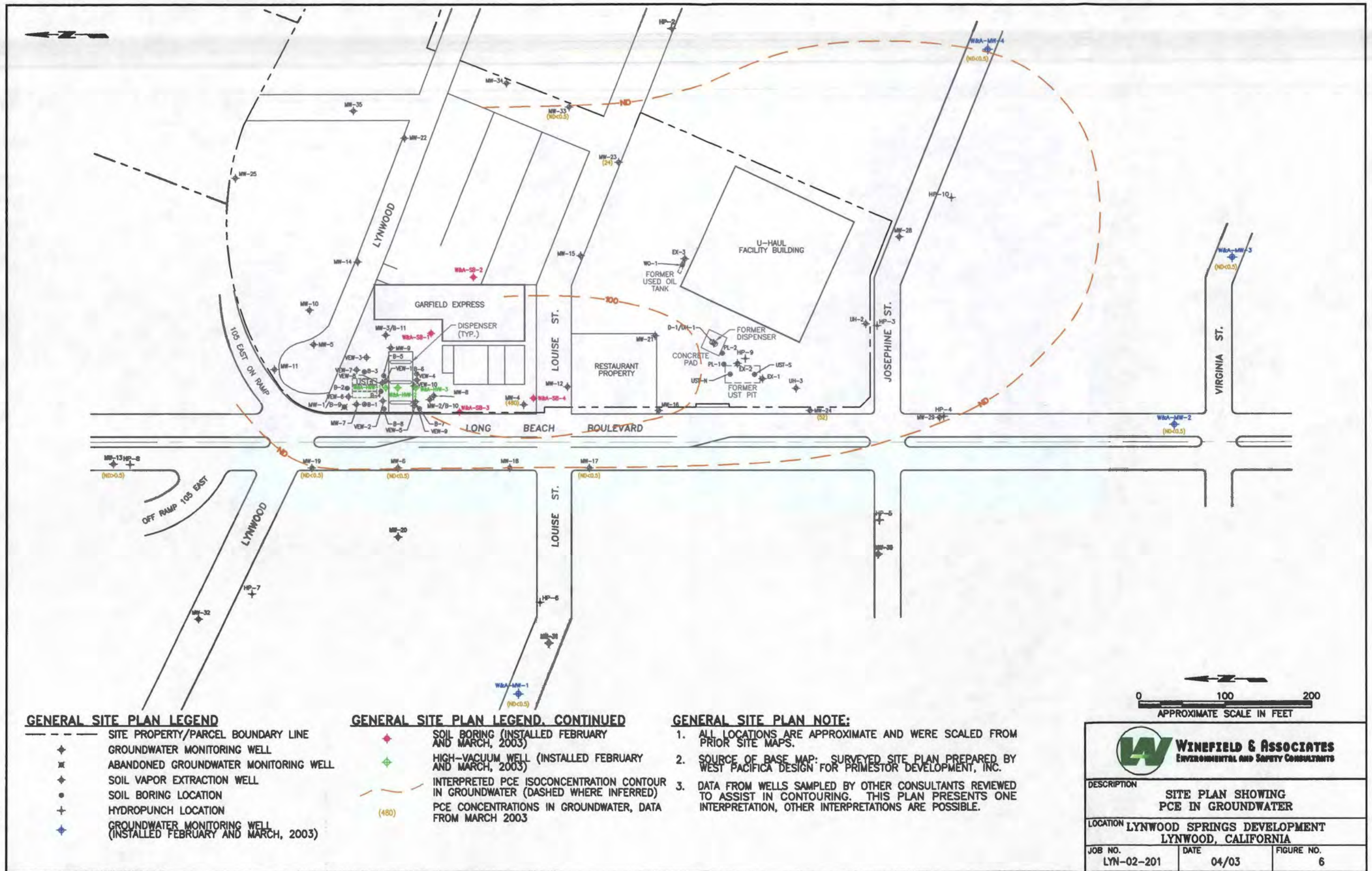


 <b>WINEFIELD &amp; ASSOCIATES</b> ENVIRONMENTAL AND SAFETY CONSULTANTS		
DESCRIPTION	SITE PLAN SHOWING CONTAMINANT CONCENTRATIONS IN SOIL	
LOCATION	LYNWOOD SPRINGS DEVELOPMENT LYNWOOD, CALIFORNIA	
JOB NO.	DATE	FIGURE NO.
LYN-02-201	04/03	4

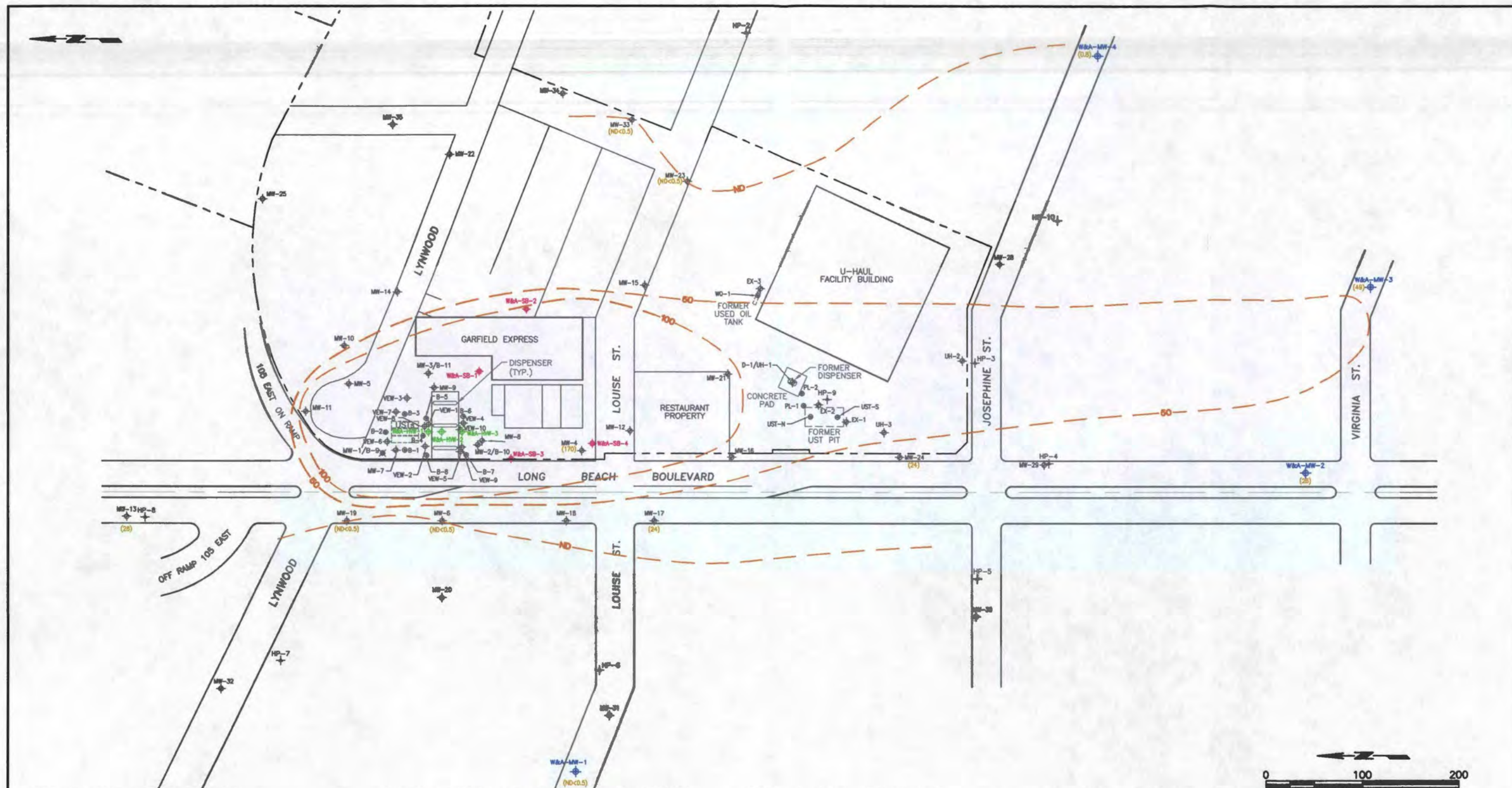












**GENERAL SITE PLAN LEGEND**

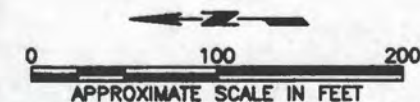
- SITE PROPERTY/PARCEL BOUNDARY LINE
- ◆ GROUNDWATER MONITORING WELL
- ✕ ABANDONED GROUNDWATER MONITORING WELL
- ◆ SOIL VAPOR EXTRACTION WELL
- SOIL BORING LOCATION
- ✚ HYDROPUNCH LOCATION
- ◆ GROUNDWATER MONITORING WELL (INSTALLED FEBRUARY AND MARCH, 2003)

**GENERAL SITE PLAN LEGEND. CONTINUED**

- ◆ SOIL BORING (INSTALLED FEBRUARY AND MARCH, 2003)
- ◆ HIGH-VACUUM WELL (INSTALLED FEBRUARY AND MARCH, 2003)
- - - INTERPRETED TCE ISOCONCENTRATION CONTOUR IN GROUNDWATER (DASHED WHERE INFERRED)
- (170) TCE CONCENTRATIONS IN GROUNDWATER, DATA FROM MARCH 2003

**GENERAL SITE PLAN NOTE:**

1. ALL LOCATIONS ARE APPROXIMATE AND WERE SCALED FROM PRIOR SITE MAPS.
2. SOURCE OF BASE MAP: SURVEYED SITE PLAN PREPARED BY WEST PACIFICA DESIGN FOR PRIMESTOR DEVELOPMENT, INC.
3. DATA FROM WELLS SAMPLED BY OTHER CONSULTANTS REVIEWED TO ASSIST IN CONTOURING. THIS PLAN PRESENTS ONE INTERPRETATION, OTHER INTERPRETATIONS ARE POSSIBLE.



DESCRIPTION <b>SITE PLAN SHOWING TCE IN GROUNDWATER</b>		
LOCATION <b>LYNWOOD SPRINGS DEVELOPMENT LYNWOOD, CALIFORNIA</b>		
JOB NO. LYN-02-201	DATE 04/03	FIGURE NO. 7

## APPENDICES



**APPENDIX A**  
**AGENCY CORRESPONDENCE**



Winston H. Hickox  
Secretary for  
Environmental  
Protection

# California Regional Water Quality Control Board Los Angeles Region

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Gray Davis  
Governor

February 4, 2003

Ms. Shirley Wolf  
Project Manager  
City of Lynwood  
11330 Bullis Road  
Lynwood, CA 90262

## UNDERGROUND TANK PROGRAM – EVALUATION OF WORK PLAN SUBMITTED FOR SITE ASSESSMENT, FEASIBILITY STUDY, AND PREPARATION OF REMEDIAL ACTION PLAN PROPOSED LYNWOOD SPRINGS RETAIL CENTER LYNWOOD, CALIFORNIA

Dear Ms. Wolf:

Thank you for "work plan for site assessment, feasibility study, and preparation of remedial action plan" (workplan) dated December 9, 2002 prepared by Winefield & Associates, Inc. (W&A) for the proposed Lynwood Springs Retail Center in Lynwood, California. This site is located on the east side of Long Beach Boulevard and extends south from the south side of the 105 Freeway to Josephine Street. The site is composed of a number of individual properties that include residences, a strip mall that includes a former dry cleaner and a retail gasoline station, a former restaurant and a U-Haul vehicle rental facility. The gasoline station (Garfield Express) and U-Haul are currently involved in separate environmental investigation requirements under the direction of this Regional Board.

The workplan was submitted to address remediation of these two properties as a single overall strategy for the Lynwood Springs site. The Health and Safety portion of the workplan was reviewed by Mrs. Cynthia Paulo, the Industrial Hygienist of the State Water Resources Control Board.

According to the workplan:

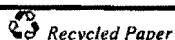
1. The lateral and vertical limits of the chlorinated hydrocarbon plume in the soil beneath the site have not been fully assessed.
2. The vertical distribution of the product plume in the groundwater is not yet defined.
3. The extent of dissolved chlorinated hydrocarbons in groundwater is not yet fully assessed.

The proposed scope of work presented in the workplan to address the above mentioned issues includes the following items:

1. Complete a phase II subsurface investigation to assess the vertical and lateral extent of chlorinated hydrocarbons in soil and groundwater. Four offsite groundwater monitoring wells

### *California Environmental Protection Agency*

\*\*\*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption\*\*\*  
\*\*\*For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>\*\*\*



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Ms. Shirley Wolf  
Lynwood Springs

- 2 -

February 4, 2003

(W&A-MW-1 through W&A-MW-4) will be installed south, southeast and west beyond existing wells, and four soil borings (W&A-SB-1 through W&A-SB-4) will be completed on or adjacent to the Garfield Express property as depicted in figure 6 of the workplan.

2. Perform Cone Penetrometer Testing (CPT)/Rapid Optical Screening Technique (ROST) and soil sampling to better define the distribution of separate phase product in the subsurface.
3. Conduct High Vacuum Extraction feasibility test to evaluate the effectiveness of this method in reducing residual hydrocarbon concentrations in the vadose zone and the capillary fringe beneath the site. The high vacuum test will be conducted in the most contaminated zone of the Garfield Express property. Three soil borings (W&A-HVW-1 through W&A-HVW-3) will be drilled for installation of high vacuum test wells as shown in figure 6 of the workplan.
4. Conduct Enhanced In-Situ Bioremediation field testing to evaluate the potential of in-situ bioremediation method beneath the site under current site conditions. Groundwater will be extracted from well MW-23, treated, mixed with hydrogen peroxide, and injected into well MW-33. The progress of the oxygenated water will be monitored in well W&A-MW-5.
5. Collect preliminary discrete-depth water quality field readings from existing wells to be used in preparing for aquifer and bioremediation tests.
6. Prepare a site conceptual model that includes a sensitive receptor survey and groundwater fate and transport analysis using the soil and groundwater test results to calculate contaminant cleanup levels.
7. Prepare a remedial action plan to develop the most cost effective remediation strategy for the site.

We concur with the workplan as presented with the following comments:

#### **I. Site Assessment**

Four offsite groundwater monitoring wells (W&A-MW-1 through W&A-MW-4) will be installed south, southeast and west beyond existing wells, and four soil borings (W&A-SB-1 through W&A-SB-4) will be completed on or adjacent to the Garfield Express property as depicted in figure 6 of the workplan.

1. Quarterly Groundwater monitoring from these new wells must be performed by the City of Lynwood and in coordination with Garfield Express and U-Haul groundwater monitoring program.
2. Soil samples must be collected at five-foot intervals in all soil borings for geologic logging purposes. However, they do not need to be prepared for chemical analysis.
3. All groundwater samples must be analyzed by EPA Method 8015 for TPH-g (gasoline), and EPA Method 8260B for BTEX, methyl tertiary butyl ether (MTBE), di-isopropyl ether

#### ***California Environmental Protection Agency***

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\*\*\*For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>\*\*\*



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Ms. Shirley Wolf  
Lynwood Springs

- 3 -

February 4, 2003

(DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA). In addition, all other constituents detected between method detection limits (MDL) and the estimated quantifiable limits (EQL) must be reported (see the attached laboratory requirements dated 6/22/2000). Please report all groundwater data in micrograms per liter ( $\mu\text{g/L}$ ). All analytical data must be reported by a California certified laboratory.

4. Construction and development of groundwater monitoring wells must comply with the requirements prescribed in California Code of Regulations (CCRs), Title 23, Division 3, Chapter 16, Section 2649 (copy enclosed).
5. Any wells containing free product must be purged to remove any standing product, allowed to equilibrate to pre-purged levels, and free product thickness measured and recorded. If free product is present, it must be removed pursuant to Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2655.
6. All groundwater monitoring wells must be surveyed to a benchmark for known elevation above mean sea level by a licensed land surveyor or registered civil engineer. Prior to collecting groundwater samples, free product thickness (if present) must be determined and the depth to water must be measured in all wells to be sampled. Then the wells are to be properly purged until the temperature, conductivity, and pH stabilize, and the water is free of suspended and settleable matter, before samples are collected for analysis.
7. All necessary permits must be obtained from the appropriate agencies prior to start of the work.
8. Please notify the Regional Board at least **7 days** prior to start of the work so that we can schedule one of our staff members to be present during the fieldwork.
9. All work must be performed by or under the direction of the registered geologists or registered civil engineers. A statement is required in the report that the registered professionals in responsible charge actually supervised or personally conducted all the work associated with the project. All technical submittals must contain a wet ink signature and seal by one of the registered professionals.

## II. High Vacuum Extraction Test

1. The three soil borings proposed for a high vacuum extraction test seem to be located too close to each other. Therefore, obtaining accurate data, evaluating the applicability of this method, and estimating the radius of soil vapor extraction influence may not be possible. Please revise and resubmit your plan 15 days prior to start of work for our review and concurrence.
2. High vacuum extraction shall be performed in coordination with the BIO-VEP system currently in operation at the Garfield Express site.

### *California Environmental Protection Agency*

\*\*\*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption\*\*\*

\*\*\*For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>\*\*\*



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Ms. Shirley Wolf  
Lynwood Springs

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February 4, 2003

### **III. In-Situ Bioremediation field testing**

The workplan proposal to inject hydrogen peroxide into the subsurface is not approved at this time.

1. Hydrogen peroxide injection in the subsurface shall not be performed in areas where free product exists.
2. Prior to implementing hydrogen peroxide injection, and in accordance with section 13260 of the California Water Code, a Report of Waste Discharge must be filed, and a valid waste discharge requirement (WDR) must be obtained from this Regional Board. You may contact Mr. Kwangil Lee, Non-NPDES Unit at (213) 576-2269 for WDR Application.

### **IV. Health and Safety Plan**

The health and safety plan submitted as part of the workplan indicates that 3,000 gallons of decontamination fluids will be collected during the site investigation. However, no spill containment program was addressed. Please submit a spill containment program to supplement your health and safety plan 5 days prior to start of work.

**If you have any questions concerning this matter, please call Mr. David Bacharowski at (213) 576-6607 or Mr. Arman Toumari at (213) 576-6758.**

Sincerely,

*Original Signed by*

Dennis A. Dickerson  
Executive Officer

### **California Environmental Protection Agency**

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*Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations*

Ms. Shirley Wolf  
Lynwood Springs

- 5 -

February 4, 2003

Mailing List (by e-mail)

Mr. Robert Sams, Office of Chief Counsel, State Water Resources Control Board  
Mr. Hari Patel, Underground Storage Tank Cleanup Fund, State Water Resources Control Board  
Mr. Tim Smith, L.A. County DPW, Environmental Program Division  
Dr. Bruce Mowry, Water Replishment District of Southern California  
Mr. Louis Ross, Garfield Express  
Mr. Josef Solares, State UST Fund Advisory & Services (Woodland Hills Office)  
Mr. Brian Alexander, J&B Environmental, Inc. (Phelan Office)  
Mr. Arturo Sneider, Primestor Development  
Mr. Reid Riner, Amerco Real Estate Company (Phoenix Office)  
Mr. Dan Blaes, Blaes Environmental Management, Inc. (Phoenix Office)  
Mr. Matt Winefield, Winefield & Associates, Inc. (Long Beach Office)  
William J. and Martha L. Steck (property owner)  
Ms. Laura Torres (property owner)  
Ms. Lillie Jordan (property owner)  
First Church of Deliverance (property owner)  
Pereza, Maria B et al Ortiz, Benedicto (property owner)  
Miguel and Maria Guzman (property owner)  
Gabriel O. and Tola Miro (property owner)  
Mr. Zeferino Jr. Aispuro (property owner)  
Mr. Oliver W. Conner (property owner)  
Chae C. and So Y. Cho (property owner)  
Bruce and Mia Kang (property owner)

***California Environmental Protection Agency***

\*\*\*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption\*\*\*  
\*\*\*For a list of simple ways to reduce demand and cut your energy costs, see the tips at: <http://www.swrcb.ca.gov/news/echallenge.html>\*\*\*



Recycled Paper

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**APPENDIX B**

**APPROVED PERMIT APPLICATIONS**

APPLICATION FOR WELL PERMIT 5050 Commerce DR BALDWIN PARK  
 ENVIRONMENTAL HEALTH 2525 Corporate Place Monterey Park Ca 91754 91706  
 COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH SERVICES

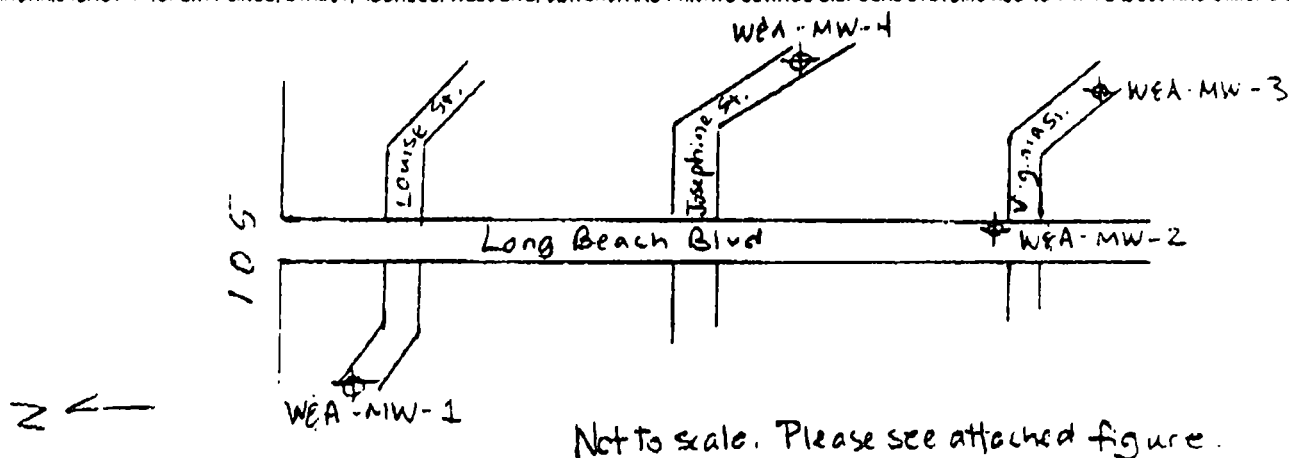
DATE 2/03/03

DESCRIPTION

TYPE OF PERMIT (CHECK) <input checked="" type="checkbox"/> NEW WELL CONSTRUCTION <input type="checkbox"/> RECONSTRUCTION OR RENOVATION <input type="checkbox"/> DESTRUCTION	TYPE OF WELL <input type="checkbox"/> CATHODIC <input type="checkbox"/> TEST <input checked="" type="checkbox"/> OBSERVATION/MONITORING <u>(4)</u>
TYPE OF CASING <u>2-inch diameter, schedule 40, blank and slotted (0.02") PVC</u>	
METHOD OF SEALING OF CASING <u>hydrated bentonite chips</u>	
METHOD OF DESTRUCTION <u>N/A</u>	

LOCATION

ADDRESS (NUMBER, STREET, AND NEAREST INTERSECTION) Property East of Long Beach Blvd. & South of Glenn Anderson (105) Freeway CITY Lynwood 90262  
 DIAGRAM (SHOW PROPERTY LINES, STREET, ADDRESS, WELL SITE, SEWERS, AND PRIVATE SEWAGE DISPOSAL SYSTEMS ALONG WITH LABELS AND DIMENSIONS)



APPLICANT

NAME OF WELL DRILLER (PRINT) <u>Prosonic, Corp.</u>	NAME OF WELL OWNER (PRINT) <u>City of Lynwood Redevelopment Agency</u>
TRADE NAME <u>2475 Carrizosa Ave.</u>	MAILING ADDRESS <u>11330 Bullis Road</u>
BUSINESS ADDRESS <u>Signal Hill</u> CITY	CITY <u>Lynwood, CA 90262</u>

I hereby agree to comply in every respect with all regulations of the County Preventive/Public Health Services and with all ordinances and laws of the County of Los Angeles and of the State of California pertaining to well construction, reconstruction and destruction. Upon completion of well and within ten days thereafter, I will furnish the County Preventive/Public Health Services with a complete log of the well, giving date drilled, depth of well, all perforations in casing, and any other data deemed necessary by such County Preventive/Public Health Services

Sheila Morrissey  
 Applicant's Signature

PRINT YOUR NAME AND PHONE # HERE  
310 578 6788

DISPOSITION OF APPLICATION: (For Sanitarians Use Only)

☐ APPROVED ☐ DENIED  
☒ APPROVED WITH CONDITIONS

If denied or approved with conditions, report reason or conditions here:

I NEED A COPY OF THE WELL CONSTRUCTION DIAGRAM AND YOUR BUSINESS CARD PLEASE.

DATE	SANITARIAN
DATE <u>2/7/03</u>	SECTION CHIEF <u>Michael Lui (626) 430-5398</u>

Sheila Morrissey When signed by Section Chief, this application is a permit.

**SERVICE APPLICATION AND FEE COLLECTION  
COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES  
PUBLIC HEALTH PROGRAMS - ENVIRONMENTAL HEALTH**

**SERVICE REQUEST APPLICATION**

**INSTRUCTIONS**

1. Check the TYPE OF SERVICE requested and attach the required non-refundable fee to the application. Make money order or check payable to LOS ANGELES COUNTY TREASURER, DO NOT SEND CASH. This application is nontransferable.

**FEE REQUIRED\***

\$100.00

**TYPE OF SERVICE**

- ☒ **MONITORING WELL CONSTRUCTION/DESTRUCTION**
- ☐ **WELL CONSTRUCTION, RENOVATION OR DESTRUCTION PERMIT**  
Complete and attach a Well Permit Application
- ☐ **PRIVATE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT**
- ☐ **PRIVATE SEWAGE DISPOSAL SYSTEM RENOVATION/EXPANSION**
- ☐ **INSPECTION OF MOUNTAIN CABIN SITE** as required by the United States Forest Service
- ☐ **INSPECTION OF EXISTING PRIVATE SEWAGE SYSTEM** as required by FHA/VA
- ☐ **WATER SUPPLY TEST AND CERTIFICATION** as required by U.S. Department of Agriculture

2. Check with Contact Office stamped below for requirements or information.
3. Complete the required information or deliver the completed application, money order or check with the forms indicated.

to: County of Los Angeles  
Mountain & Rural Program  
Water & Sewage Program  
2525 Corporate Place, #150  
Monterey Park, CA 91754  
(323) 881-4147

\* Refer to Schedule of Fees  
for current fiscal year.

**NOTE: FIELD PERSONNEL CANNOT ACCEPT FEES.**

4. Phone Contact Office noted below, after you have received your receipt, to request an inspection.

Property East of Long Beach Blvd. & South of Glen Anderson (105) Freeway 2/02/23  
Service/Job Location Address Date

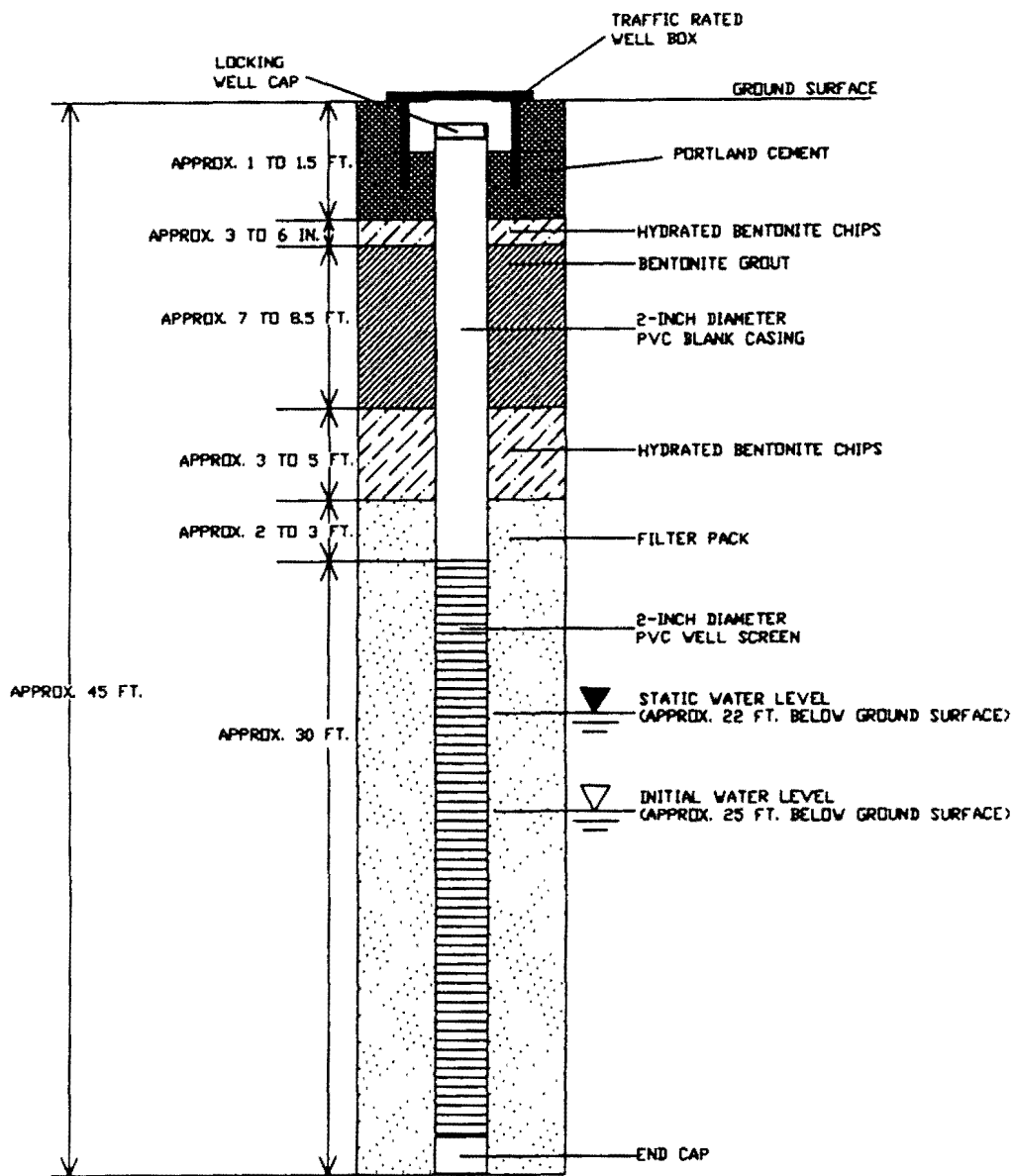
City of Lynwood Redevelopment Agency 11330 Bullis Road, Lynwood, CA 90262  
Owner/Applicant's Name Address Phone No.

Whitfield & Assoc., 110 Pine Avenue, Suite 900, Long Beach, CA 90802 (562) 495-5222  
Contractor's Name Address Phone No.


Co. Engineer Plan Check No. \_\_\_\_\_ Tract No. \_\_\_\_\_ Lot No. \_\_\_\_\_ No. Bedrooms \_\_\_\_\_  
(Complete line above for Private Sewage Disposal System Construction or Renovation Application)

CONTACT OFFICE

DEPARTMENT STAMP



NOT TO SCALE

Project No: <b>LYN-06-202</b>		File: <b>WAI-007 Well Diagram</b>	<b>SCHEMATIC DIAGRAM OF WELLS</b>
Drawn by: <b>WFG</b>		Date: <b>2/13/03</b>	
Client: <b>City of Lynwood 11330 Bullis Road Lynwood, CA 90282</b>			 <b>WINEFIELD &amp; ASSOCIATES</b> ENVIRONMENTAL AND SAFETY CONSULTANTS
Site: <b>Proposed Lynwood Springs Development Lynwood, California</b>			
			<b>FIGURE 1</b>

# APPLICATION FOR ENCROACHMENT PERMIT

EP 180

Expiration Date 2.4.09

Applicant to complete (print)

FEES

Applicant PROSONIC Corporation  
 Mailing address 2475 Cerritos Ave  
 City SIGNAL HILL zip 90755  
 Telephone No 562-424-9992  
 Emergency No 562-244-1169  
 Start Date 2/10/03 Completion Date 2/20/03  
 OSHA Permit No \_\_\_\_\_ USA No. A5350327  
 State Lic No 492082 Lic Class CS7 Bus. Lic. No. \_\_\_\_\_  
 Insurance carrier (Workers Comp) CNA  
 Policy No WC1063317264  
 Insurance carrier (Liability) Cincinnati Insurance  
 Policy No 1062946475  
 Location CA SEE ATTACHED SKETCH

Issuance Fee \$ \_\_\_\_\_  
 Plan Check Fee \$ \_\_\_\_\_  
 Inspection Fee \$ 315.00  
 Special Deposit \$ \_\_\_\_\_  
 Other \$ \_\_\_\_\_  
 Total \$ \_\_\_\_\_

Purpose Drill four soil borings and install four groundwater monitoring wells in public rights of way to define groundwater contamination

Const./Excavation Item	Std. Plan No.	Length	Width
Residential Driveway			
Commercial Driveway			
Curb/Gutter			
Sidewalk			
Asphaltic Concrete			
Conduit			
Other			
Other			

CITY OF LYNNWOOD  
 REDEVELOPMENT  
 AGENCY

Applicant to provide sketch of project location and scope of work (as required) Sketch to show proximity to nearest major intersection

## APPLICANT'S DECLARATION

Application is hereby made to encroach into the public right-of-way at the above-described location(s) subject to all applicable provisions of Section 13-11 of Title 13 of the Lynwood Municipal Code and any attachments hereto.

In consideration of the granting of this permit, the applicant agrees that the City of Lynwood, its officers and employees shall be held harmless by the applicant from any liability or responsibility for any accident, loss or damage to persons or property, happening or occurring as a proximate result of any work or activities undertaken pursuant to the permit, and that all of said liabilities and responsibilities are hereby assumed by the applicant. Applicant further agrees that, if any part of the work or installation authorized hereunder interferes with the future use of the highway by the general public, it shall be removed or relocated, as directed by the Director of Public Works, at the expense of the applicant's successors or assigns.

Applicant states that the reverse side of this Encroachment Permit has been read and understood

Call office of the City Engineer (310) 803-0220 24 hours prior to all required inspections.

Signature of Applicant \_\_\_\_\_

Date \_\_\_\_\_

## PERMIT APPROVAL AND ACCEPTANCE OF WORK

Subject to all the terms, conditions and restrictions of this application and any attachments hereto, permission is granted to encroach upon or perform work within designated public right-of-way in the City of Lynwood. This permit shall become null and void if work is not commenced within 60 days and continued to completion.

Approved by \_\_\_\_\_

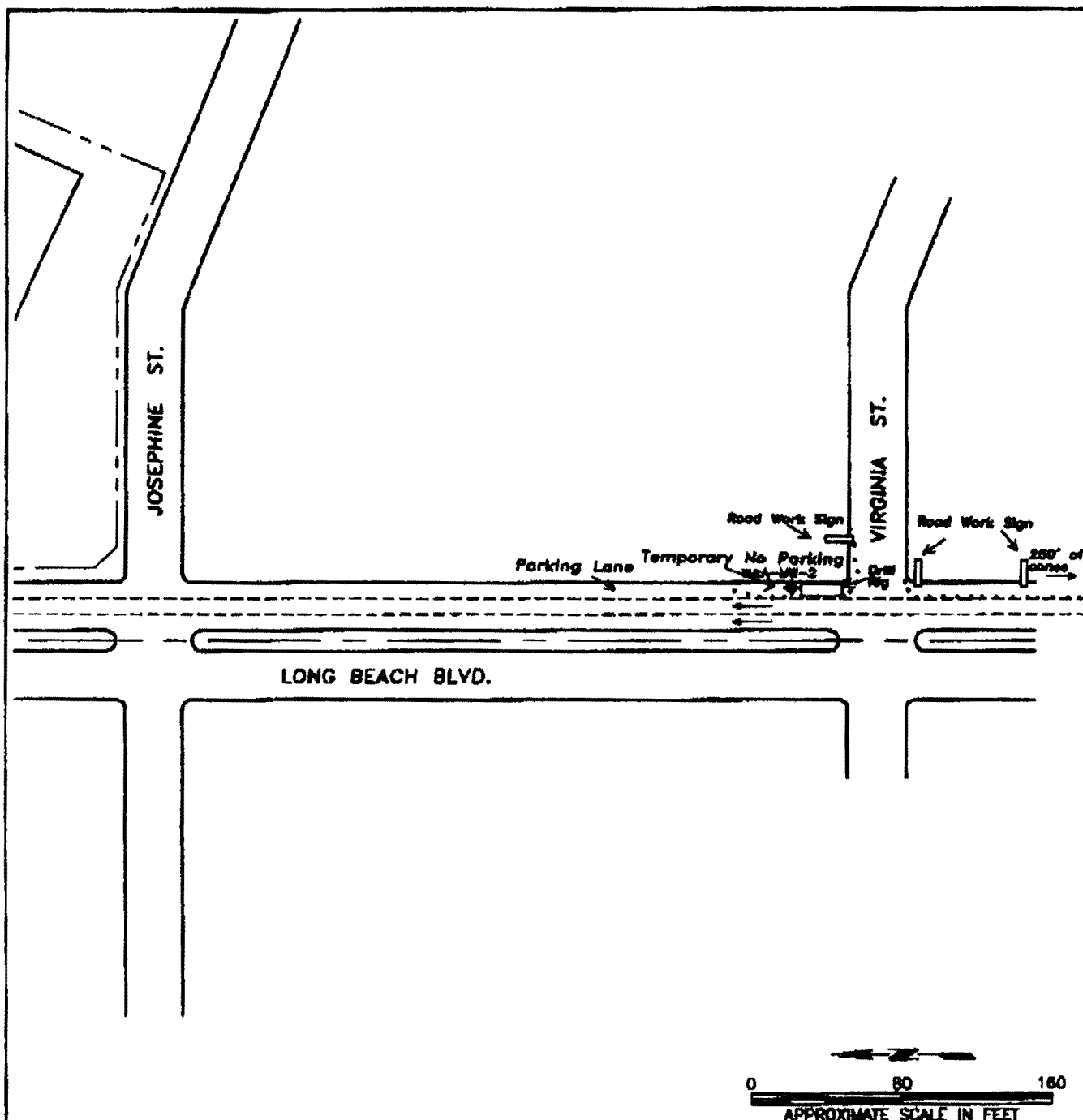
Date \_\_\_\_\_

Work was inspected and accepted by the City \_\_\_\_\_

Inspector's Signature \_\_\_\_\_

Date \_\_\_\_\_

VOID IF WORK NOT COMMENCED WITHIN 60 DAY AND CONTINUED TO COMPLETION

**GENERAL SITE PLAN LEGEND**

- SITE PROPERTY/PARCEL BOUNDARY  
 ◆ PROPOSED GROUNDWATER MONITORING WELL

**GENERAL SITE PLAN NOTE:**

1. SOURCE OF BASE MAP: SURVEYED SITE PLAN PREPARED BY WEST PACIFICA DESIGN FOR PRIMESTOR DEVELOPMENT, INC.
2. TRAFFIC CONTROL PLAN BASED ON WORK AREA TRAFFIC CONTROL HANDBOOK, 2001, NINTH EDITION.



**WINEFIELD & ASSOCIATES**  
 ENVIRONMENTAL AND SAFETY CONSULTANTS

**DESCRIPTION****TRAFFIC CONTROL PLAN****PROJECT**

**LYNWOOD SPRINGS DEVELOPMENT**  
**LYNWOOD, CALIFORNIA**

**LOCATION****JOB NO.**

LRP-01-201

**DATE**

02/03

**FIGURE NO.**

1

FILE NAME: LYNWOOD\_ASM-DET.0203


















**APPENDIX C**









**DRILL LOG LEGEND AND DRILL LOGS**

# DRILL LOG LEGEND






## UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions	Symbols	Descriptions
Gravels	 GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
	 GP	POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
	 GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES.
	 GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES.
Sands	 SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES.
	 SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
	 SM	SILTY SANDS, SAND-SILT MIXTURES.
	 SC	CLAYEY SANDS, SAND-CLAY MIXTURES.
Silts & Clays Liquid Limit < 50.	 ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY.
	 CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS.
	 OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY.
Silts & Clays Liquid Limit > 50.	 MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS.
	 CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
	 OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS.
Organic Soils	 Pt	PEAT OR OTHER HIGHLY ORGANIC SOILS.

## CONSTRUCTION

	CEMENT
	BENTONITE GROUT
	BENTONITE CHIPS
	FILTER PACK
	WELL SCREEN
	SLUFF
	TRAFFIC RATED WELL BOX
	LOCKING WELL CAP

## SAMPLING

	SAMPLING INTERVAL: NO SAMPLE RETRIEVED
	SAMPLING INTERVAL: SAMPLE RETRIEVED
	SAMPLING INTERVAL: PACKAGED FOR LAB
	INITIAL WATER LEVEL
	STATIC WATER LEVEL

# DRILL LOG

Page 1 of 2

Job No. LYN-06-202 Job Name Lynwood Springs

Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA

WELL NO.: W&A-HVW-1

Surface Elev. \_\_\_\_\_ Total Hole Depth 23.0 ft. Diameter 8 in.

Top of Casing \_\_\_\_\_ Water Level: Initial N/A Static \_\_\_\_\_

Screen: Dia. 2 in. Length 5 ft. Type/Size Sch. 40 PVC 0.020 slot

Casing: Dia. 2 in. Length 18 ft. Type Sch. 40 PVC

Drilling Co. Prosonic Corp. Filter Pack #3

Rig CME-75 Method Hollow Stem Auger

Driller Eddie Ramos Logged by S. K. Morrissey

Date Drilled 3/4/03 Permit No. \_\_\_\_\_

Checked by: W. F. Girolamo License No. R. G. 5723

## COMMENTS:

Hand auger first 5 feet.  
Located on the north side of the pump islands on the Garfield Express property.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/Recovery	Graphic Log	Well Construc.	Description
0						0'-4" Asphalt.
1						4'-1' Gravelly SAND (SW) roadbase, moderate yellowish brown, dry, no odor.
2	1,354	W&AHVW-2	6			1'-1.75' Pea gravel (SW).
3			10			
4			12			1.75'-5' SAND with silt (SW-SM), 90% fine to medium sand, 10% silt, trace coarse sand, trace gravel, micaceous, dark yellowish brown, loose, dry to slightly moist, strong hydrocarbon odor.
5	1,760		3			
6		W&AHVW1-6	4			5'-18.5' SILT (ML), 60% silt, 40% very fine to fine sand, micaceous, dark yellowish brown, loose, slightly moist, very strong "rotten" odor.
7			9			
8						
9						
10			4			
11		W&AHVW1-11	5			SILT (ML) as above, 50% silt, 50% very fine to fine sand.
12			6			
13						
14						
15	>2,000		8			SILT (ML) as above.
16			12			
17			12			
18						
19						18.5'-23' SAND with silt (SP-SM), 90% fine to medium sand, 10% silt, micaceous, moderate yellowish brown, slightly moist, strong hydrocarbon odor.
20						



WINEFIELD & ASSOCIATES  
ENGINEERING AND SURVEY CONSULTANTS

# DRILL LOG

Page 2 of 2

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-HVW-1

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20						
21						
22	1,383		8			
23		VLAHVW1-23	14			
			16			Bottom of soil boring and sampling interval at 23.0 ft.
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						



WINEFIELD & ASSOCIATES  
ENGINEERING, AND SAFETY CONSULTING

# DRILL LOG

Page 1 of 2

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 23.0 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial \_\_\_\_\_ Static \_\_\_\_\_  
 Screen: Dia. 2 in. Length 5 ft. Type/Size Sch. 40 PVC 0.020 slot  
 Casing: Dia. 2 in. Length 18 ft. Type Sch. 40 PVC  
 Drilling Co. Prosonic Corp. Filter Pack #3  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Reynaldo Vaca Logged by S. K. Morrissey  
 Date Drilled 3/3/03 Permit No. \_\_\_\_\_  
 Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-HVW-2

COMMENTS:  
 Hand auger first 5 feet.  
 Located on the Garfield Express property between the two pump islands closest to Long Beach Blvd.  
 Blow counts not available and samples not collected by split spoon due to low mast height.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
0						0'-6" Concrete.
1						6"-2' Silty SAND (SM), 80% fine sand, 20% silt, micaceous, olive grey, moist, very strong hydrocarbon odor.
2						2'-4' Well Graded SAND (SM), 60% fine to coarse sand, 40% gravel, olive gray, dry, very strong hydrocarbon odor, decreasing gravel with depth.
3						
4						4'-4.5' SAND with SILT (SP-SM), 90% fine sand, 10% silt, moderate yellowish brown, dry, very strong hydrocarbon odor.
5						4.5'-12.5' SILT (ML), 90% silt, 10% medium sand, plastic, olive grey, moist, very strong hydrocarbon odor, visible hydrocarbon staining on sediment.
6						
7						
8						
9						
10						SILT (ML) as above, 70% silt, 30% medium sand, micaceous, moist, very strong hydrocarbon odor.
11						
12						
13						12.5'-17.5' Silty SAND (SM), 80% fine sand, 20% silt, micaceous, moderate yellowish brown, dry to slightly moist, very strong hydrocarbon odor.
14						
15						
16						
17						
18						17.5'-22' SILT (ML), 90% silt, 10% medium sand, micaceous, plastic, olive grey, soft, moist, strong hydrocarbon odor.
19						
20						



WINEFIELD & ASSOCIATES  
 Environmental and Safety Consultants

# DRILL LOG

Page 2 of 2

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-HVW-2

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20						
21						SILT (ML) as above, moderate yellowish brown, strong hydrocarbon odor.
22	420	W&AHVW2-22				Bottom of sampling interval at 22.0 ft. Bottom of soil boring at 23.0 ft.
23			Sample collected from bottom of auger.			
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
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42						
43						
44						
45						
46						



WINEFIELD & ASSOCIATES  
ENVIRONMENTAL AND SAFETY CONSULTANTS

# DRILL LOG

Page 1 of 2

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 23.0 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial N/A Static \_\_\_\_\_  
 Screen: Dia. 2 in. Length 5 ft. Type/Size Sch. 40 PVC 0.020 slot  
 Casing: Dia. 2 in. Length 18 ft. Type Sch. 40 PVC  
 Drilling Co. Prosonic Corp. Filter Pack #3  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Eddie Ramos Logged by S. K. Morrissey  
 Date Drilled 3/4/03 Permit No. \_\_\_\_\_  
 Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-HVW-3

## COMMENTS:

Hand auger first 5 feet.  
 Located on the south side of the pump islands on the Garfield Express property.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/Recovery	Graphic Log	Well Construc.	Description
0						0'-4" Asphalt.
1	1,640		9			4'-1' Gravelly SAND FILL (SM) roadbase, grayish blue green, loose, dry to slightly moist, no odor.
2		V&AHVW3-2.5	13			1'-7.5' Silty SAND (SM), 85% fine to medium sand, 15% silt, moderate yellowish brown, loose to medium dense, dry to slightly moist, faint to moderate hydrocarbon odor, charred wood in sample.
3			19			
4						
5	>2,000		3			Silty SAND (SM) as above, 70% very fine to fine sand, 30% silt, moderate yellowish brown, micaceous, loose, slightly moist, very strong "rotten" odor.
6		V&AHVW3-6	4			
7			8			
8						
9						7.5'-18' SILT (ML), 80% silt, 20% micaceous sand, dark yellowish brown, loose, slightly moist to moist, strong "rotten" odor.
10	>2,000		6			
11		V&AHVW3-11	11			
12			5			
13						
14						
15	>2,000		5			SILT (ML) as above, strong "rotten" odor.
16			9			
17			14			
18						
19						18'-23' Silty SAND (SM), 80% fine sand, 20% silt, moderate yellowish brown, loose, slightly moist, strong "rotten" odor.
20						









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 Environmental and Safety Consultants

# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-HVW-3

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20						
21			7			
22	>2,000	W&AHVW3-225	10			
			13			Bottom of sampling interval at 22.5 ft. Bottom of boring at 23.0 ft.
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
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41						
42						
43						
44						
45						
46						





# DRILL LOG

Page 1 of 2

Job No. LYN-06-202 Job Name Lynwood Springs

Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA

Surface Elev. \_\_\_\_\_ Total Hole Depth 46.5 ft. Diameter 8 in.

Top of Casing \_\_\_\_\_ Water Level: Initial 25.5 ft. Static \_\_\_\_\_

Screen: Dia. 2 in. Length 30 ft. Type/Size Sch. 40 PVC 0.020 slot

Casing: Dia. 2 in. Length 15 ft. Type Sch. 40 PVC

Drilling Co. Prosonic Corp. Filter Pack #2/12

Rig CME-75 Method Hollow Stem Auger

Driller Eddie Ramos Logged by W. F. Girolamo, S. K. Morrissey

Date Drilled 2/10/03 Permit No. LADOHS# 0432168

Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-MW-1

## COMMENTS:

Hand auger first 5 feet.  
Located on Louise St.,  
approximately 250 ft.  
west of Long Beach Blvd.

Depth (Ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
0						0'-2' Asphalt.
1						2'-6' Gravely SAND FILL (SM) roadbase, loose, dry.
2						6'-4' SAND (SP), 100% fine to very fine sand, micaceous, moderate yellowish brown, loose, slightly moist, no odor, coarsens slightly (to fine) with depth.
3						
4						4'-6' SILT (ML), 80% silt, up to 10% fine sand and 10% clay, micaceous, dusky brown, slightly to moderately plastic, soft, slightly moist, no odor.
5			5			
6	0.0		5			6'-8' Poorly graded SAND (SP) as above, loose slightly moist, no odor.
7						
8						8'-12.5' Interlayered silty SAND (SM) and SILT (ML), dusky brown to dark yellowish brown, silty SAND: 80% fine micaceous sand, 20% silt, loose to medium dense, slightly moist, interlayered with 2-in. thick SILT: 90% silt, 10% fine sand, both micaceous, no odor.
9	2.4		6			
10			8			
11			12			
12						
13						12.5'-15' Silty SAND (SM) as above, no odor.
14						
15			8			15'-16.25' Lean CLAY (CL), 70% clay, 30% silt, trace fine sand, micaceous, plastic, dark yellowish brown, soft to medium dense, slightly moist to moist, no odor.
16	0.0		9			
17			17			16.25'-20.75' Silty SAND (SM), 60% fine micaceous sand, 40% silt, dusky brown, medium dense, slightly moist, no odor.
18						
19						
20						



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# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-MW-1

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20	6.6		7			20.75'-21.25' SILT (ML), 80% micaceous silt, 20% clay, plastic, dark yellowish brown, soft, slightly moist to moist, no odor.
21			7			
22			9			
23	4.6		8			21.25'-32.5' Alternating Silty SAND (SM) and SILT (ML) in 3 to 6 inch layers. Moist to wet, no odor, becomes light olive gray with depth, becomes saturated at 25.5', with some interlayered poorly graded fine SAND (SP).
24			10			
25	0.0		16			
26	0.0		12			
27			15			
28			16			
29			9			
30			10			
31			18			
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						

W&AMW1-26

Σ 25.5

Alternating silty SAND, fine to medium sand, as above, and SILT (ML) as above, olive grey, loose to medium dense, wet to saturated, no odor, layers up to 6 inches thick.

32.5'-37.5' SAND (SM) with Silt, 90% fine to medium sand, 10% silt, olive gray, medium dense, wet to saturated, no odor, micaceous.

37.5'-41' Silty SAND (SM), 70% fine to medium sand, 30% silt, olive grey, medium dense, wet to saturated, no odor. Grades to:

41'-43' Poorly Graded SAND (SP), 100% fine to coarse sand, olive gray, medium dense, saturated, no odor, heaving sands.

43'-46' Lean CLAY (CL), 80% clay, 20% silt, grayish olive green, medium dense, saturated, no odor. Grades to:

46'-46.5' Silty SAND (SM), 70% fine sand, 30% silt, olive gray, medium dense, saturated, no odor.

Bottom of boring at 45.0 ft.

Bottom of sampling interval at 46.5 ft.



WINFIELD & ASSOCIATES  
ENGINEERS, ARCHITECTS, AND SURVEYORS

# DRILL LOG

Page 1 of 2

Job No. LYN-06-202 Job Name Lynwood Springs

Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA

Surface Elev. \_\_\_\_\_ Total Hole Depth 46.0 ft. Diameter 8 in.

Top of Casing \_\_\_\_\_ Water Level: Initial 23.0 ft. Static \_\_\_\_\_

Screen: Dia. 2 in. Length 30 ft. Type/Size Sch. 40 PVC 0.020 slot

Casing: Dia. 2 in. Length 15 ft. Type Sch. 40 PVC

Drilling Co. Prosonic Corp. Filter Pack #3

Rig CME-75 Method Hollow Stem Auger

Driller Eddie Ramos Logged by W. F. Girolamo

Date Drilled 2/11/03 Permit No. LADOHS# 0432168

Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-MW-2

## COMMENTS:

Hand auger first 5 feet.

Located on east side of Long Beach Blvd. at Virginia Street

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
0						0"-4" Asphalt.
1						4"-1.5' Well Graded SAND with gravel (SW) roadbase FILL, moderate brown, loose, dry to slightly moist, no odor.
2						1.5'-3' Poorly Graded SAND (SP), 100% fine to medium sand, pale yellowish brown, loose to medium dense, dry to slightly moist, no odor, trace silt by 2.5 ft.
3						5'-5' Silty SAND (SM), 60% fine sand, 40% silt, micaceous, dark yellowish brown, medium dense, slightly moist, no odor, roots, becomes pale yellowish brown with depth, diminishing % silt with depth.
4						
5						
6						5'-12.5' SILT (ML), 80% silt, 10% fine sand, 10% clay, micaceous, moderately plastic, dark yellowish brown, soft, slightly moist, no odor.
7						
8						
9						
10	14.1		6			
11			6			
12			10			
13						12.5'-24.5' Silty SAND (SM), 60% fine sand, 40% silt, dark yellowish brown, loose to medium dense, slightly moist, no odor.
14						
15			6			
16	18.2		12			
17			17			
18						
19						Silty SAND (SM) as above, 80% fine sand, 20% silt, dark yellowish brown, medium dense, moist to wet, no odor, % silt decreases with depth.
20			11			



WINFIELD & ASSOCIATES  
ENGINEERS AND SURVEYORS

# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-MW-2

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20	138	V&AMW2-20.5	13			
21			16			
22						
23	851					23.0 ft.
24						
25			13			24.5'-27.5' Poorly Graded SAND (SP), 100% fine to medium sand, dark yellowish brown, medium dense, saturated, no odor.
26			17			
27	32.9		20			27.5'-32.5' SAND with Silt (SP-SM), 90% very fine to fine sand, 10% silt, dark yellowish brown, loose to medium dense, saturated, faint peaty odor, becomes olive gray with depth.
28						
29						
30			9			
31	48		10			32.5'-40.75' Poorly Graded SAND (SP), 100% fine to medium micaceous sand, olive gray, medium dense, saturated, no odor, some zones with up to 10% silt.
32			14			
33						
34						
35	14.3		11			40.75'-42.5' SILT (ML), 80% silt, 10% clay, up to 10% fine sand, moderately plastic, soft, wet, no odor.
36			14			
37			30			
38						
39	135					42.5'-46' Poorly Graded SAND (SP), 100% fine to medium sand, olive gray, loose, saturated, no odor, some zones of medium to coarse sand, some zones with up to 10% silt.
40			5			
41			6			
42			6			
43						Bottom of boring at 45.0 ft.
44			7			
45			9			Bottom of sampling interval at 46.0 ft.
46			16			



# DRILL LOG

Page 1 of 2

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 46.0 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial 26.5 ft. Static \_\_\_\_\_  
 Screen: Dia. 2 in. Length 30 ft. Type/Size Sch. 40 PVC 0.020 slot  
 Casing: Dia. 2 in. Length 15 ft. Type Sch. 40 PVC  
 Drilling Co. Prosonic Corp. Filter Pack #2/10  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Eddie Ramos Logged by W. F. Girolamo  
 Date Drilled 2/11/03 Permit No. LADOHS# 0432168  
 Checked by: W. F. Girolamo License No. R. G. 5723

WELL No.: W&A-MW-3

## COMMENTS:

Hand auger first 5 feet.  
 Located on Virginia St., approximately 200 ft. east of Long Beach Blvd.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/Recovery	Graphic Log	Well Construc.	Description
0	PID not working in the rain.	W&AMW3-1				0'-5' Asphalt.
1						5'-10' Gravely SAND FILL (SM) roadbase.
2						10'-3' Poorly Graded SAND (SP), 100% fine sand, moderate yellowish brown, loose, dry, no odor.
3						3'-7.5' SILT (ML), 60% silt, 40% fine sand, dusky brown, non- to slightly plastic, soft, dry to slightly moist, no odor.
4						
5			6			
6			6			
7			7			
8						7.5'-11' Poorly Graded SAND (SP), 100% fine sand, dark yellowish brown, loose, slightly moist, no odor.
9						
10			5			
11			6			11'-11.25' SILT (ML), 70% silt, 20% fine sand, 10% clay, slightly to moderately plastic, dusky brown, medium dense, slightly moist, no odor.
12			19			11.25'-15.25' Silty SAND (SM), 80% fine sand, 20% silt, dusky brown, medium dense, slightly moist, no odor.
13						
14						
15			15			15.25'-15.75' SILT (ML), as above.
16			20			
17			20			15.75'-30.5' Silty SAND (SM), 80% fine sand, 20% silt, dark yellow brown, medium dense, no odor.
18						
19						
20						



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# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-MW-3

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20			8			
21			8			
22			8			
23			15			
24			16			
25			20			
26			6			
27			10			
28			13			
29						
30						
31			12			
32			16			
33			27			
34						
35			12			
36			24			
37			26			
38						
39						
40			10			
41			10			
42			13			
43			13			
44			16			
45			24			
46			5			
			11			
			20			

W&AMW3-25

26.5

30.5'-39.75' Poorly Graded SAND (SP), 100% fine to medium sand, olive gray, medium dense, saturated, no odor, becomes dark yellowish brown below 31.25'.

Poorly Graded SAND (SP), as above, 100% fine sand, trace medium sand, medium gray, medium dense, saturated, no odor.

39.75'-42.5' Lean CLAY (CL), 70% clay, 30% silt, plastic, medium dark gray, medium stiff, moist to wet, no odor, becomes stiffer with depth.

42.5'-43' Silty SAND (SM)

43'-45' Poorly Graded SAND (SP), 100% fine sand, trace silt, medium dark gray, saturated, no odor.

46'-46.5' Lean CLAY (CL), 60% clay, 30% silt, up to 10% fine sand, plastic, medium dark gray, medium stiff, wet, no odor.

Bottom of boring at 45.0 ft.

Bottom of sampling interval at 46.5 ft.



WINEFIELD & ASSOCIATES  
Geotechnical and Survey Consultants

# DRILL LOG

Job No. LYN-06-202 Job Name Lynwood Springs

Site Owner Garfield Express

Location 11600 S. Long Beach Blvd., Lynwood, CA

WELL NO.: W&A-MW-4

Surface Elev. \_\_\_\_\_ Total Hole Depth 46.5 ft. Diameter 8 in.

Top of Casing \_\_\_\_\_ Water Level: Initial 24.5 ft. Static \_\_\_\_\_

Screen: Dia. 2 in. Length 30 ft. Type/Size Sch. 40 PVC 0.020 slot

Casing: Dia. 2 in. Length 15 ft. Type Sch. 40 PVC

Drilling Co. Prosonic Corp.

Filter Pack #2/12

Rig CME-75

Method Hollow Stem Auger

Driller Eddie Ramos

Logged by W. F. Girolamo, S. K. Morrissey

Date Drilled 2/10/03

Permit No. \_\_\_\_\_

Checked by: W. F. Girolamo

License No. R. G. 5723

## COMMENTS:

Hand auger first 5 feet.  
Located off site, on  
Josephine St.,  
approximately 350 ft.  
east of Long Beach Blvd.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
0						0'-4" Asphalt
1						4'-10" Gravelly SAND FILL (SM) roadbase.
2						10'-6.5' SAND with SILT (SP-SM), 90% fine sand, 10% silt, micaceous, moderate yellowish brown, loose, dry. Grades to:
3						
4						
5			3			
6	0.0		5			
7			9			6.5'-16' SILT (ML) 60% silt, 40% fine sand, micaceous, moderate brown, medium stiff, dry to slightly moist, no odor.
8						
9						
10			3			SILT (ML) as above, 60% silt, 20% fine sand, 20% clay, micaceous, moderate brown, moist, no odor.
11	0.0		5			SILT (ML) as above, 60% silt, 40% clay, soft, no odor, roots.
12			7			
13						
14						
15			5			SILT (ML) as above, 90% silt, 10% fine sand, micaceous, moderate brown, soft, slightly moist, no odor, roots. Grades to:
16	0.0		10			16'-18' Silty SAND (SM) 80% fine sand, 20% silt, moderate brown, soft to medium stiff, no odor.
17			10			
18						
19						18'-21' SILT (ML) 70% silt, 30% fine sand, micaceous, moderate brown, medium stiff, slightly moist, no odor. Grades to:
20						



# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-MW-4

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20						
21						
22	0.0		7			21'-24' Silty SAND (SM) 80% fine sand, 20% silt, moderate brown, loose, moist, no odor, decreasing % silt to 10% by 24 feet. Grades to:
23			7			
24			8			
25	0.0	W&AMW4-25 W&A-ER-1	7			24'-27.5' SAND with SIL (SP-SM) 90% fine sand, 10% silt, micaceous, olive gray, loose, wet, no odor, moderate yellowish brown with depth.
26			7			
27			10			
28						27.5'-32.5' Interlayered silty SAND (SM) and SILT (ML), sand with 10% silt, and silt with 30% sand, micaceous, olive gray, medium stiff, saturated, no odor.
29						
30	0.0		9			
31			16			
32			22			
33						32.5'-46' SAND (SP), 100% fine to medium sand, some interlayered 1 inch-thick silty sand layers with 30% silt, angular to subangular, olive gray, medium dense, saturated, no odor.
34						
35			9			
36	0.0		18			
37			29			
38						
39						
40						
41	0.0		10			SAND (SP) as above, 100% medium to coarse sand, olive gray, angular to subangular, medium dense, saturated, no odor, finer with depth to 90% fine sand and 10% silt by 41.5 feet.
42			10			
43			14			
44						
45						
46	0.0		18			SAND (SP) as above, 100% medium to coarse sand, angular to subangular, grayish brown, medium dense, saturated, no odor. Grades to:
			24			46'-46.5' Silty SAND (SM), 50% very fine sand, 30% silt, 20% clay, olive gray, medium dense to dense, no odor.
			27			





# DRILL LOG

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 31.0 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial 25.0 ft. Static \_\_\_\_\_  
 Screen: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type/Size \_\_\_\_\_  
 Casing: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Drilling Co. Prosonic Corp. Filter Pack \_\_\_\_\_  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Eddie Ramos Logged by S. K. Morrissey  
 Date Drilled 3/4/03 Permit No. \_\_\_\_\_  
 Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-SB-1

## COMMENTS:

Hand auger first 5 feet.  
 Located by the west wall of the laundromat on the Garfield Express property.  
 Boring abandoned using bentonite grout.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/Recovery	Graphic Log	Well Construc.	Description
0						
1	113.5	W&ASB1-1	14			0'-3' Asphalt
2		W&ASB1-1.5 (Physical)	34			3'-6' Silty SAND (SM) 60% very fine to fine sand, 40% silt, moderate yellowish brown, dense, dry to slightly moist, no odor.
3			28			6'-5' SAND with silt (SP-SM), 90% fine sand, 10% silt, moderate yellowish brown, loose, dry, no odor, increasing % silt with depth.
4						
5	97.3	W&ASB1-5	4			
6		W&ASB1-5.5	5			5'-7.5' Silty SAND (SM), 80% fine sand, 20% silt, micaceous, moderate yellowish brown, no odor.
7			9			
8						7.5'-12.5' SAND with silt (SP-SM), 95% fine to medium sand (mostly fine), 5% silt, micaceous, moderate yellowish brown, loose, dry, no odor, with ironoxide staining.
9						
10	183.3	W&ASB1-10.5	8			
11		W&ASB1-11	13			
12			16			
13						12.5'-17.5' SILT (ML), 85% silt, 15% fine sand, micaceous, plastic, dark yellowish brown, medium dense, slightly moist, no odor.
14						
15			7			
16	114.9	W&ASB1-16 (Physical)	15			
17			28			
18						17.5'-22.5' Silty SAND (SM), varies 70-80% very fine to fine sand, 20-30% silt, micaceous, moderate yellowish brown, loose to medium dense, slightly moist, moderate hydrocarbon odor.
19						
20						



# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-SB-1

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20	>2,000	W&AMW1-20.5 W&AMW1-21 (Physical)	12			
21			14			
22			20			
23	>2,000	W&AMW1-25.5	11 16 33			22.5'-25' SILT (ML) with sand, 85% silt, 15% fine sand, plastic, micaceous, dark yellowish brown, medium dense, slightly moist, no odor, grades into.
24						
25						25.0
26						25'-31' Silty SAND (SP-SM), 80% very fine to fine sand, 20% silt, micaceous, trace medium sand, dark yellowish brown, medium dense, wet, moderate hydrocarbon odor, iron oxide staining.
27						
28	>2,000	W&AMW1-30.5 (Physical)	9 12 28			Bottom of boring and sampling interval at 31.0 ft.
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						



# DRILL LOG

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 36.5 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial 25.0 ft. Static \_\_\_\_\_  
 Screen: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type/Size \_\_\_\_\_  
 Casing: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Drilling Co. Prosonic Corp. Filter Pack \_\_\_\_\_  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Reynaldo Vaca Logged by S. K. Morrissey  
 Date Drilled 3/3/03 Permit No. \_\_\_\_\_  
 Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-SB-2

COMMENTS:  
 Hand auger first 5 feet.  
 Located near the east wall  
 of the laundromat  
 in a vacant lot east  
 of the Garfield Express  
 property.  
 Boring abandoned using  
 bentonite grout.





Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
0						
1			4			0'-4' Silty SAND (SM) 60% very fine to fine sand, 40% silt, micaceous, dark yellowish brown, loose, slightly moist, no odor.
2		W&ASB2-2.5	5			
3			7			
4						
5			3			4'-11' Poorly Graded SAND (SP), 100% fine to medium sand, micaceous, moderate yellowish brown, loose, dry, faint hydrocarbon odor.
6		W&ASB2-6.5	5			
7			6			
8						
9						
10	22.4		4			
11		W&ASB2-11.5	6			
12			6			11'-22.5' SILT (ML), 90% silt, 10% medium sand, micaceous, plastic, moderate olive brown, soft, moist, no odor.
13						
14						
15			4			
16			4			SILT (ML) as above, very strong hydrocarbon odor.
17			4			
18						
19						
20						



# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-SB-2

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20						
21	384		2 6 10			SILT (ML) as above, very strong hydrocarbon odor, plant roots.
22						
23						22.5'-36.5' Silty SAND (SM), 50% fine to medium sand, 50% silt, micaceous, moderate olive brown, loose, wet, very strong hydrocarbon odor.
24						
25						▽ 25.0
26	350	W&ASB2-26.5	6 9 9			Silty SAND (SM) as above, trace gravel, dark olive gray, loose saturated, moderate hydrocarbon odor.
27						
28						
29						
30	1,381		7 9 9			Silty SAND (SM) as above, trace gravel, dark olive gray, loose saturated, moderate hydrocarbon odor.
31						
32						
33						
34						
35			8 8 8			Silty SAND (SM) as above, moderate hydrocarbon odor.
36	174					Bottom of boring and sampling interval at 36.5 ft.
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						



# DRILL LOG

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA WELL NO.: W&A-SB-3  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 31.0 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial 24.25 ft. Static \_\_\_\_\_  
 Screen: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type/Size \_\_\_\_\_  
 Casing: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Drilling Co. Prosonic Corp. Filter Pack \_\_\_\_\_  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Eddie Ramos Logged by W. F. Girolamo  
 Date Drilled 3/3/03 Permit No. \_\_\_\_\_  
 Checked by: W. F. Girolamo License No. R. G. 5723

## COMMENTS:

Hand auger first 5 feet.

Located on the west side of the Garfield Express property adjacent to Long Beach Blvd.

Boring abandoned using bentonite grout.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/Recovery	Graphic Log	Well Construc.	Description
0						0'-8" Concrete.
1		W&ASB3-1				8'-7.5' Poorly Graded SAND (SP), 100% fine sand, olive gray, loose to medium dense, slightly moist, moderate to strong hydrocarbon odor.
2						
3						
4						
5	186		3			Poorly Graded SAND (SP) as above, moderate hydrocarbon odor.
6		W&ASB3-6	6			
7			10			
8						7.5'-14.5' Silty SAND (SM) 60 to 80% very fine to fine sand, 20 to 40% silt, moderately plastic where silt content high, olive gray, loose, slightly moist, faint to moderate hydrocarbon odor. % silt varies with depth.
9						
10	142		5			
11		W&ASB3-11	6			
12			6			
13						
14						
15			9			14.5'-15' SILT (ML), 90% silt, 10% fine sand, micaceous, grayish brown, soft, slightly moist, very faint hydrocarbon odor.
16	145	W&ASB3-15.5	11			
17			18			15'-22.5' Silty SAND (SM), 60% fine sand, 40% silt, lesser medium sand, trace coarse sand, moderately plastic, dark yellowish brown to grayish brown, loose, medium dense, no to very faint hydrocarbon odor.
18						
19						
20			8			



# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-SB-3

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20	56		10			Silty SAND (SM) as above, very faint hydrocarbon odor.
21			14			
22						
23						22.5'-24.25' SILT (ML), 90% silt, 10% fine sand, soft, moist, grayish brown, very faint hydrocarbon odor.
24						Δ 24.25
25	611	W&ASB3-25.5	11			24.25'-27.5' Poorly Graded SAND (SP), 100% medium sand, loose to medium dense, saturated, strong hydrocarbon odor with possible product in sediment.
26		W&ASB3-26	13			
27			26			
28						27.5'-31' SAND with silt (SP-SM), 90% fine sand, 10% silt, olive black, medium dense, saturated, strong hydrocarbon odor.
29						
30	477	W&ASB3-30	8			
31			17			Bottom of boring and sampling interval at 31.0 ft.
32			20			
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						



# DRILL LOG

Job No. LYN-06-202 Job Name Lynwood Springs  
 Site Owner Garfield Express Location 11600 S. Long Beach Blvd., Lynwood, CA  
 Surface Elev. \_\_\_\_\_ Total Hole Depth 31.0 ft. Diameter 8 in.  
 Top of Casing \_\_\_\_\_ Water Level: Initial 21.0 ft. Static \_\_\_\_\_  
 Screen: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type/Size \_\_\_\_\_  
 Casing: Dia. \_\_\_\_\_ Length \_\_\_\_\_ Type \_\_\_\_\_  
 Drilling Co. Prosonic Corp. Filter Pack \_\_\_\_\_  
 Rig CME-75 Method Hollow Stem Auger  
 Driller Eddie Ramos Logged by W. F. Girolamo  
 Date Drilled 3/3/03 Permit No. \_\_\_\_\_  
 Checked by: W. F. Girolamo License No. R. G. 5723

WELL NO.: W&A-SB-4

## COMMENTS:

Hand auger first 5 feet.

Located on the west side of the Garfield Express property near Louise St.

Boring abandoned using bentonite grout.

Depth (ft.)	PID (ppm)	Sample ID	Blow Count/Recovery	Graphic Log	Well Construc.	Description
0						0'-2' Asphalt.
1						2'-1' Well Graded SAND (SW) with gravel FILL.
2						1'-9.75' Poorly Graded SAND (SP), 100% fine sand, micaceous, pale yellowish brown, loose, dry to slightly moist, no odor, some light brown iron oxide staining.
3						
4						
5						Poorly Graded SAND (SP) as above, trace of silt below 4 ft., no odor.
6						
7						
8						
9						Poorly Graded SAND (SP) as above, faint hydrocarbon odor.
10	20.1		4			
11		W&ASB4-11	5			9.75'-15.5' SILT (ML), 90% silt, 10% sand, micaceous, moderately plastic, soft, moist, very faint hydrocarbon odor.
12						
13						
14						
15			10			SILT (ML) as above, with trace sand, no odor.
16	50.0		11			
17			13			15.5'-22.5' Silty SAND (SM), 50% fine sand, 50% silt, moderately plastic, olive gray, loose to medium dense, moist, no odor.
18						
19						
20			10			Silty SAND (SM) as above, 60% very fine sand, 40% silt, micaceous, olive gray, medium dense, wet at 21 ft., no odor.



# DRILL LOG

LYN-06-202, Lynwood Springs, Lynwood, CA

WELL NO.: W&A-SB-4

Depth (Ft.)	PID (ppm)	Sample ID	Blow Count/ Recovery	Graphic Log	Well Construc.	Description
20	67.5	W&ASB4-21	12			Silty SAND (SM) as above. 21.0 ft.
21			15			
22						
23						
24		W&ASB4-26				22.5'-25.25' SILT (ML), 100% silt, micaceous, moderate olive brown, soft, wet, faint hydrocarbon odor.
25	368.5		11			
26			16			
27			24			
28						25.25'-28.75' Silty SAND (SM) as above, moderate olive brown, saturated, faint to moderate hydrocarbon odor.
29						
30	477		8			
31			16			
32			24			28.75'-31' Poorly Graded SAND (SP), 100% fine sand, trace of silt, olive gray, medium dense, saturated, faint to moderate hydrocarbon odor.
33						Bottom of boring and sampling interval at 31.0 ft.
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						





**APPENDIX D**

**WASTE MANIFESTS**

**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator's US EPA ID No.

Not Required.

Manifest  
Document No.  
000012. Page 1  
of

2261

3. Generator's Name and Mailing Address

Lynwood Redevelopment Agency

11330 Buils Road

Lynwood

Ca. 90262

4. Generator's Phone (310) 603-0220

5. Transporter 1 Company Name

Pacific Technical Services

6. US EPA ID Number

CAR000056630

A. Transporter's Phone

562-984-3018

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

Crosby &amp; Overton

1630 W 16th St.

Long Beach

CA

90810

10. US EPA ID Number

CAD028400010

C. Facility's Phone

562-432-5445

11. Waste Shipping Name and Description

Non Hazardous Waste Liquids

12. Containers

No.

Type

13.  
Total  
Quantity14  
Unit  
Wt/Vol

001

TT

0008.5

G

Additional Descriptions for Materials Listed Above

1a. Profile #: 25903 - Groundwater

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Wear proper protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number (562) 984-3018  
Site: 11600 Long Beach Blvd., Lynwood, Ca.

S/UF 6285

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Shelak, Mari SSCY

Signature

Shelak, Mari SSCY

Month Day Year  
03 21 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Rayne Erick

Signature

Rayne R. Erick

Month Day Year  
03 21 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year  
03 21 03

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year  
03 21 03

GENERATOR'S COPY

# NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.  
Not Required

Manifest  
Document  
00001

2. Page 1  
of

2261

3. Generator's Name and Mailing Address

Lynwood Redevelopment Agency

11330 Bullis Road

Lynwood

Ca. 90262

4. Generator's Phone ( 310) 803-0220

5. Transporter 1 Company Name

Pacific Technical Services

6. US EPA ID Number

CAR000056630

A. Transporter's Phone

562-984-3018

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

Crosby & Overton

1630 W 16th St.

Long Beach

CA

90810

10. US EPA ID Number

CAD028409019

C. Facility's Phone

562-432-5445

11. Waste Shipping Name and Description

a. Non Hazardous Waste Liquids

12. Containers

No.

Type

13. Total  
Quantity

14. Unit  
Wt/Vol

001

TT

003.18

G

b.

c.

d.

Additional Descriptions for Materials Listed Above

1a. Profile #: 25903 - Groundwater

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Wear proper protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number (562) 984-3018  
Site: 11600 Long Beach Blvd., Lynwood, Ca.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Sheila K Morrissey

Signature

Sheila K Morrissey

Month Day Year

10/31/703

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Richard Mariscal

Signature

Richard B Mariscal

Month Day Year

10/31/703

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR'S COPY

# NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.  
Not Required

Manifest  
Document  
00001

2. Page 1  
of

2202

3. Generator's Name and Mailing Address  
Lynwood Redevelopment Agency

11330 Bufile Road Lynwood

Ca. 90282

4. Generator's Phone: 310-803-0220

5. Transporter 1 Company Name

Pacific Technical Services

6. US EPA ID Number

CA6500656820

A. Transporter's Phone

562-984-3018

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

Crosby & Overton

1630 W 16th St.

Long Beach CA 90810

10. US EPA ID Number

CA0028408019

C. Facility's Phone

562-432-5445

1. Waste Shipping Name and Description

12. Containers

No. Type

13. Total Quantity

14. Unit Vol

a. Non-Hazardous Waste Liquids

005 DM

00250

G

b. Non-Hazardous Waste Solids

025 DM

12500

F

D. Additional Descriptions for Materials Listed Above

11a. Profile #: 25803 - Groundwater

11b. Profile #: 25804 - Soil Cuttings

Appointment #: Time:

E. Handling Codes for Wastes Listed Above

A-15

B-14

15. Special Handling Instructions and Additional Information

Wear proper protective equipment while handling. Weights or volumes are approximate. 24 Hour emergency telephone number: (562) 984-3018

Site: Garfield Express Location: 11600 Long Beach Blvd., Lynwood, Ca.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulation for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Faustin Gonzales

Signature

Month Day Year  
03 12 93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Guy Mariscal

Signature

Guy Mariscal

Month Day Year  
03 12 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

9. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19

Printed/Typed Name

Joe Ufan

Signature

TRANSPORTER # 1

03 13 93

**APPENDIX E**

**CPT/ROST LOGS<sup>TM</sup> AND WAVEFORMS**



13049 East Florence Avenue  
Santa Fe Springs, CA 90670  
Phone : 562-903-0055  
Fax: 562-903-9005

March 11, 2003  
Report Number: 0303-0775

Ninyo & Moore  
475 Goodard  
Irvine, California 92618

Attn.: Mr. Dinesh Rao

**DATA REPORT  
PIEZOCONE PENETRATION AND  
RAPID OPTICAL SCREENING TOOL TESTING  
AND RELATED SERVICES  
LYNWOOD, CALIFORNIA  
PROJECT NO. 204299002**

Dear Mr. Rao:

Fugro Geosciences (Fugro) is pleased to present this data report for Cone Penetration (CPT) and Rapid Optical Screening Tool (ROST™) testing at the above-referenced site. CPT/ROST™ provided continuous characterization of stratigraphy and petroleum hydrocarbon distribution at the testing locations. A description of the CPT and ROST™ technologies and a discussion of general ROST™ data interpretation follows. CPT and ROST™ logs and electronic data CD are included as attachments.

**Cone Penetration Testing**

CPT was performed simultaneously with each ROST™ sounding and yielded real-time stratigraphic data. CPT is a proven method for rapidly evaluating the physical characteristics of unconsolidated soils. It is based on the resistance to penetration of an electronically-instrumented cone which is continuously advanced into the subsurface. In accordance with ASTM Standard D5778-95, the cone was advanced at a rate of two centimeters per second with the driving force provided by hydraulic rams.

The CPT cone used at this site had an apex angle of 60 degrees with a base area of 15 square centimeters (cm<sup>2</sup>), and friction sleeve with a surface area of 200 cm<sup>2</sup>. The standard geotechnical sensors within the cone measure tip resistance and sleeve friction in tons per square foot (TSF). The combined data from the tip resistance and sleeve friction form the basis of the soil classification (e.g., sand, silt, clay, etc.).

Soil stratigraphy was identified using Campanella and Robertson's Simplified Soil Behavior Chart. Please note that because of the empirical nature of the soil behavior chart, the soil identification should be verified locally.





## ROST™ Testing

Fugro Geosciences' ROST™ Laser-Induced Fluorescence system was used for this investigation to screen soils for petroleum hydrocarbon materials containing aromatic hydrocarbon constituents. The system consists of a tunable laser mounted in the CPT truck that is connected to a down-hole sensor. The down-hole sensor consists of a small diameter sapphire window mounted flush with the side of the cone penetrometer probe.

The laser and associated equipment transmit 50 pulses of light per second to the sensor through a fiber optic cable. The wavelength of the pulsed excitation light is tunable and can be set to wavelengths of 266 nanometers (nm) or to wavelengths between 280 and 300 nm. An excitation wavelength of 290 nm was used for each test during this project.

The laser light passes through the sapphire window and is absorbed by aromatic hydrocarbon molecules in contact with the window, as the probe is advanced. This addition of energy (photons) to the aromatic hydrocarbons causes them to fluoresce. A portion of the fluorescence emitted from any encountered aromatic constituents is returned through the sapphire window and conveyed by a second fiber optic cable to a detection system within the CPT rig. The emission data resulting from the pulsed laser light is averaged into one reading per one second interval (approximately one reading per 2 cm vertical interval) and is recorded continuously. ROST™ may be operated in single or multi-wavelength mode, depending on project objectives. For this project, ROST™ was operated in multi-wavelength mode (MWL).

**Multi-Wavelength Mode (MWL).** In MWL mode, the emitted fluorescence is measured simultaneously at four monitoring wavelengths (340, 390, 440, and 490 nm). The four monitoring wavelengths cover the range of light produced by light fuels through heavy contaminants such as coal tar and creosote and enhance detection of widely ranging product types. The emission data is reported continuously as a total of the fluorescence intensity recorded at each of the four wavelengths. The total fluorescence intensity data is presented in real-time on a computer monitor as a graph of fluorescence intensity versus depth (FVD).

The relative percentage of fluorescence measured at each of the monitoring wavelengths (340, 390, 440, and 490 nm) is plotted continuously on the ROST™ logs as four continuous "color bands". The width of each color band represents the relative percentage of fluorescence emitted by the contaminant at each of the monitoring wavelengths (340, 390, 440, and 490 nm). For general interpretation purposes, lighter aromatic hydrocarbon molecules will emit fluorescence at shorter wavelengths and heavier, longer chained hydrocarbons will emit fluorescence at longer wavelengths.

By comparing the relative percentage ratios generated by known product samples with field data, interpretations of product type can often be made. Utility of product identification is often dependent on the degree of similarity between the reference product and the in-situ product composition.

**Reference Solution.** The fluorescence intensity of a reference solution placed on the sapphire window was measured immediately prior to conducting each test. This reference solution measurement serves two purposes. First, as a quality control check, the solution is used to ensure that the performance of the system is within specifications. Second, it allows for normalization of the data from different test locations for variation in laser power, operating conditions, and monitored emission wavelength. The reference solution used for this project was the standard M1 reference, which is a proprietary PHC containing solution. M1 provides consistent fluorescence response across the portion of the spectrum analyzed by ROST and therefore, allows the fluorescence data collected to be consistently normalized to intensities recorded as a percentage of M1.



#### **LIMITATIONS OF ENVIRONMENTAL SUBSURFACE WORK**

Fugro Geosciences' report is based upon our observations made during field work, the information provided to Fugro and the results of the ROST/CPT survey. Given the inherent limitation of environmental subsurface work, Fugro cannot guarantee that the site is free of hazardous or potentially hazardous materials or conditions or that latent or undiscovered conditions will not become evident in the future. Fugro's report was prepared in accordance with our proposal and the General Conditions agreed to between Fugro and Client and no warranties, representations, or certifications are made.

Fugro Geosciences, Inc. appreciates the opportunity to be of service to your organization. Please do not hesitate to contact us if we can be of further assistance. We look forward to working with you in the future.

Sincerely,  
**FUGRO GEOSCIENCES, INC.**

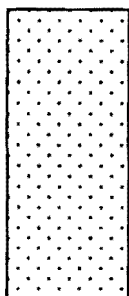
A handwritten signature in black ink, appearing to read "Recep Yilmaz", is written over the typed name.

Recep Yilmaz  
President

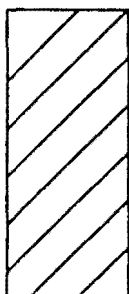
RY/jm

Enclosure: - 1 CD

## KEY TO SOIL BEHAVIOR TYPE



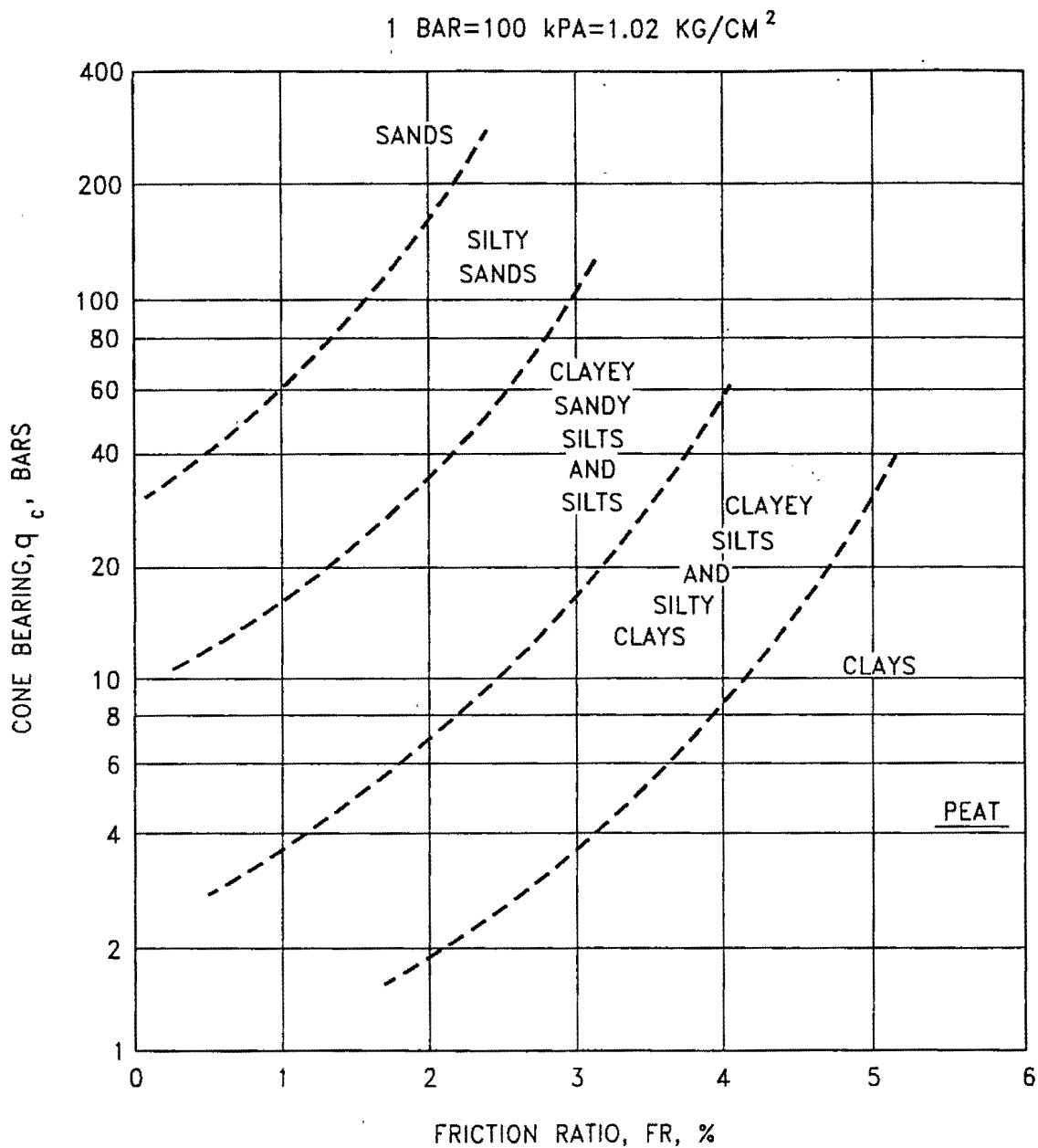
SAND AND SANDY SOIL



CLAY AND CLAYEY SOIL

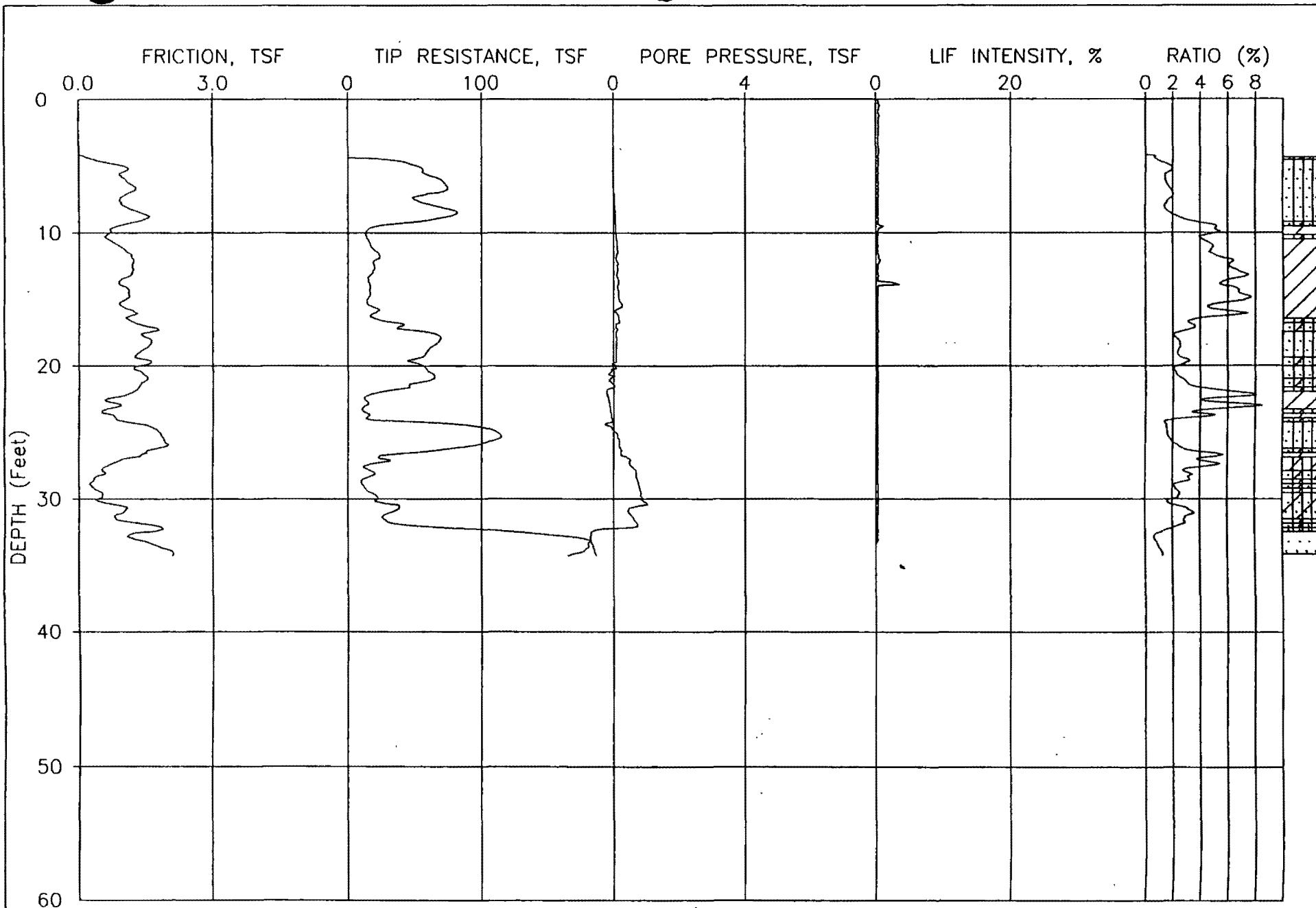


SILT AND SILTY SOIL



MODIFIED CAMPANELLA AND ROBERTSON SOIL BEHAVIOR CHART (1983)

# CPT LOGS



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CPT NUMBER: R1

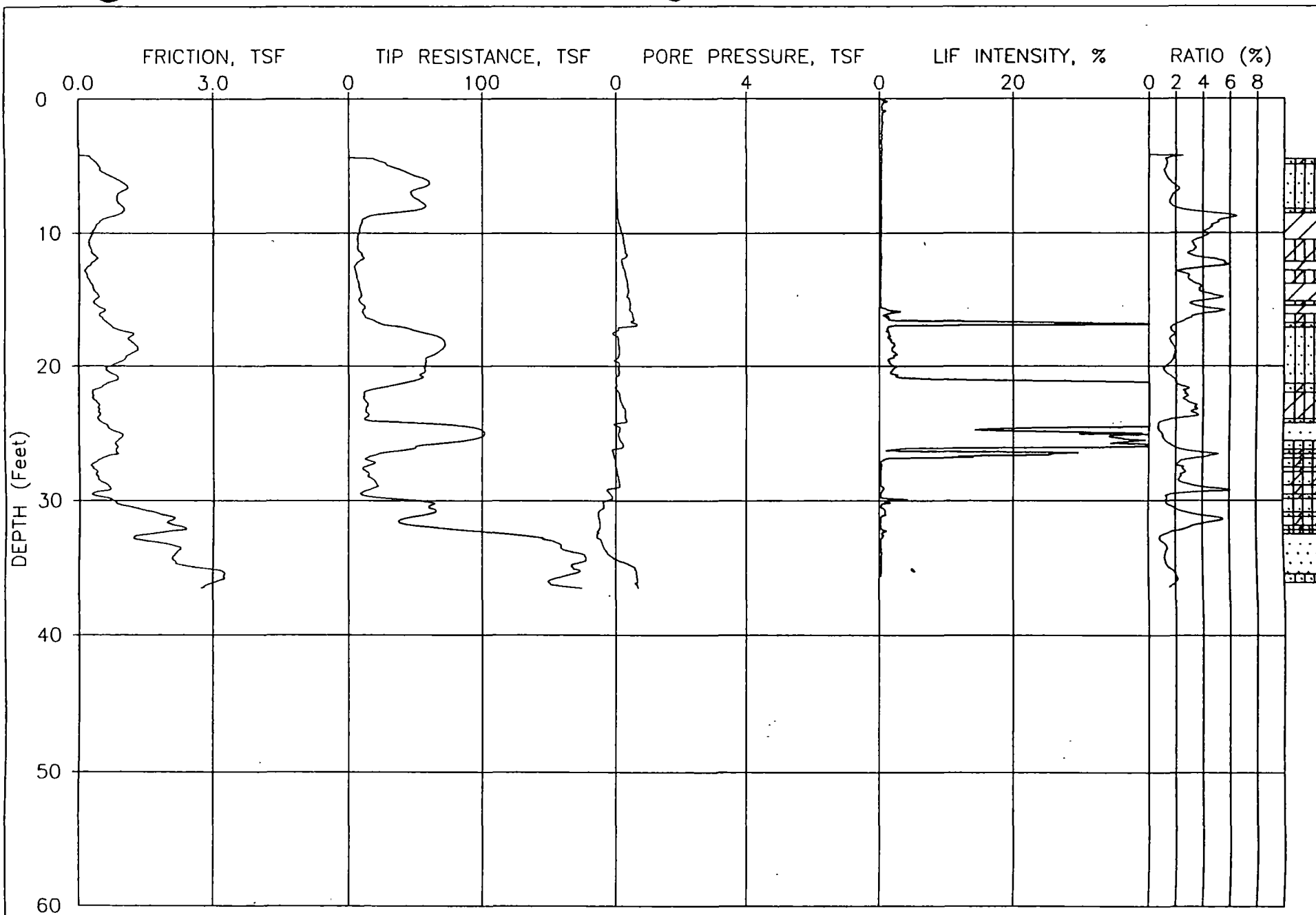
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PLATE: 1 OF 1





JOB NUMBER: 03-0775

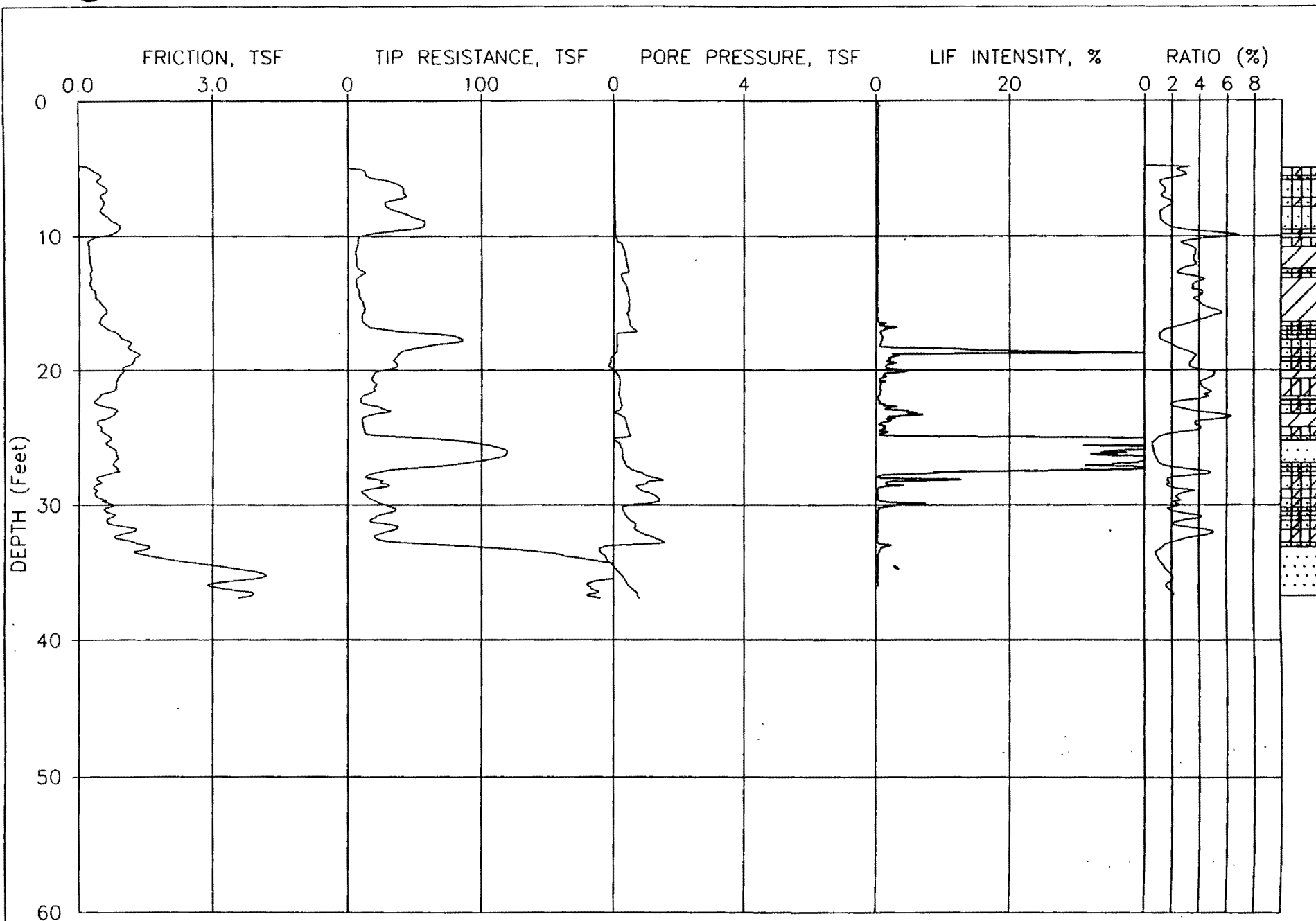
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PLATE: 1 OF 1



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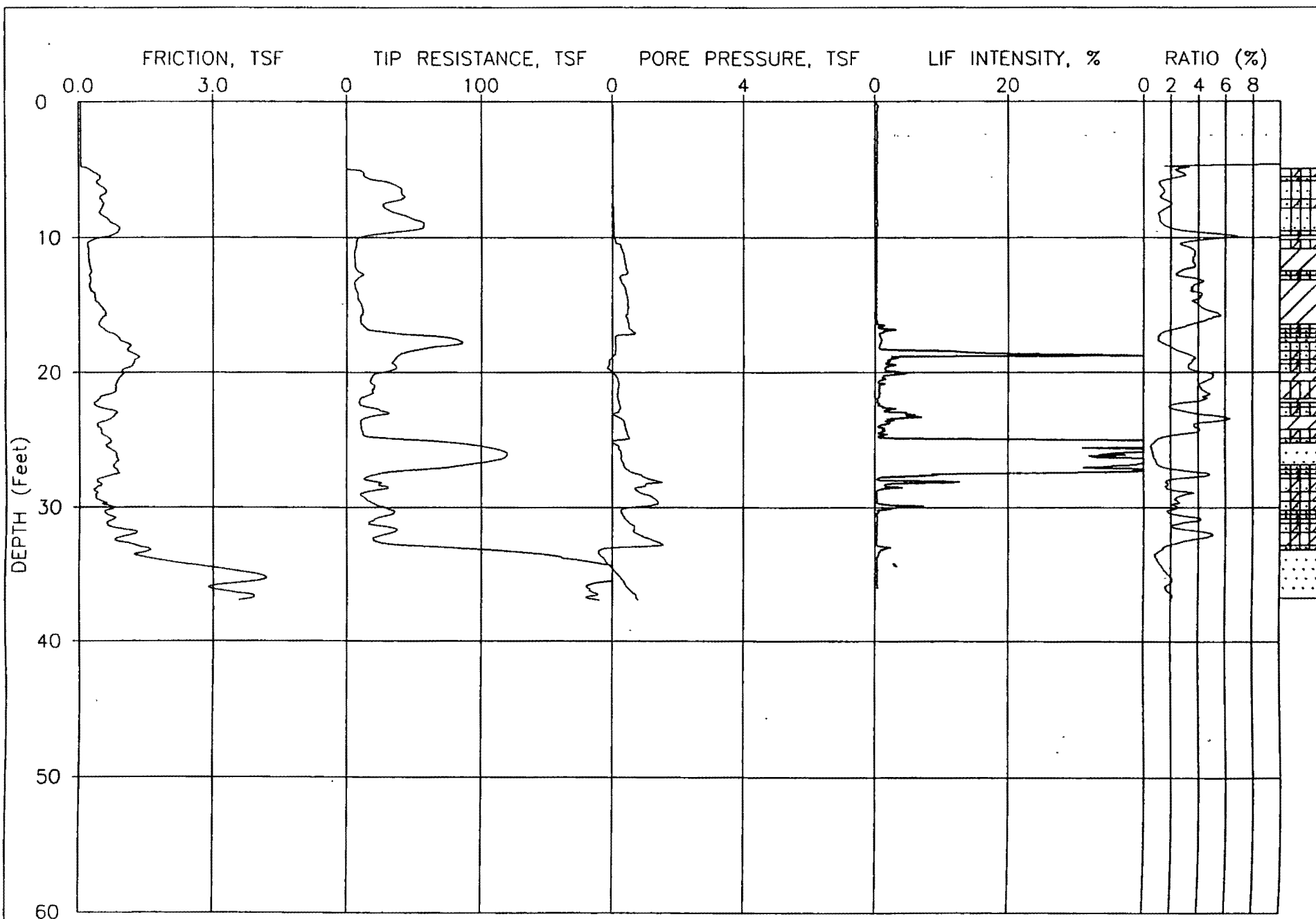
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PLATE: 1 OF 1



JOB NUMBER: 03-0775

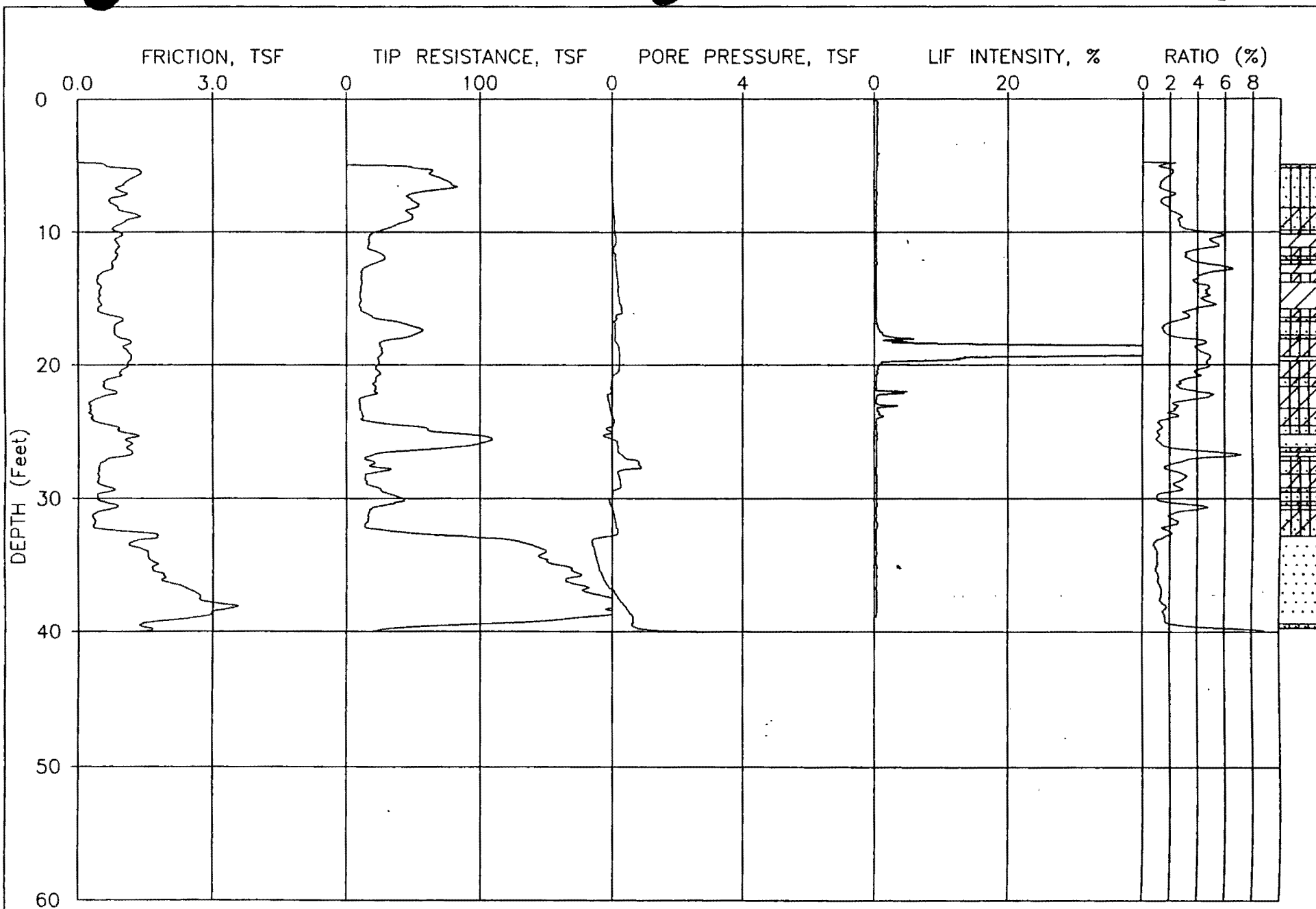
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PLATE: 1 OF 1



JOB NUMBER: 03-0775

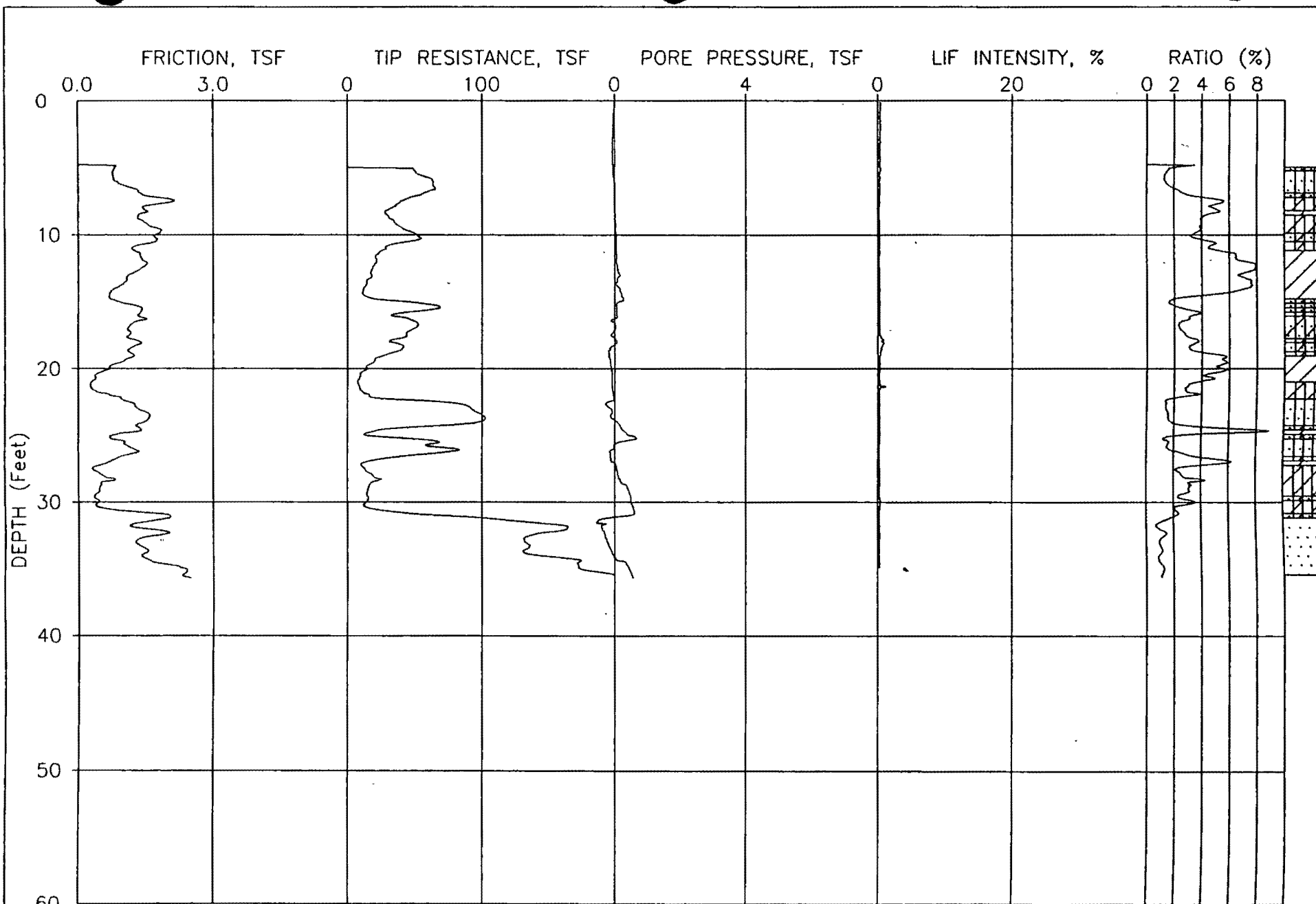
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CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

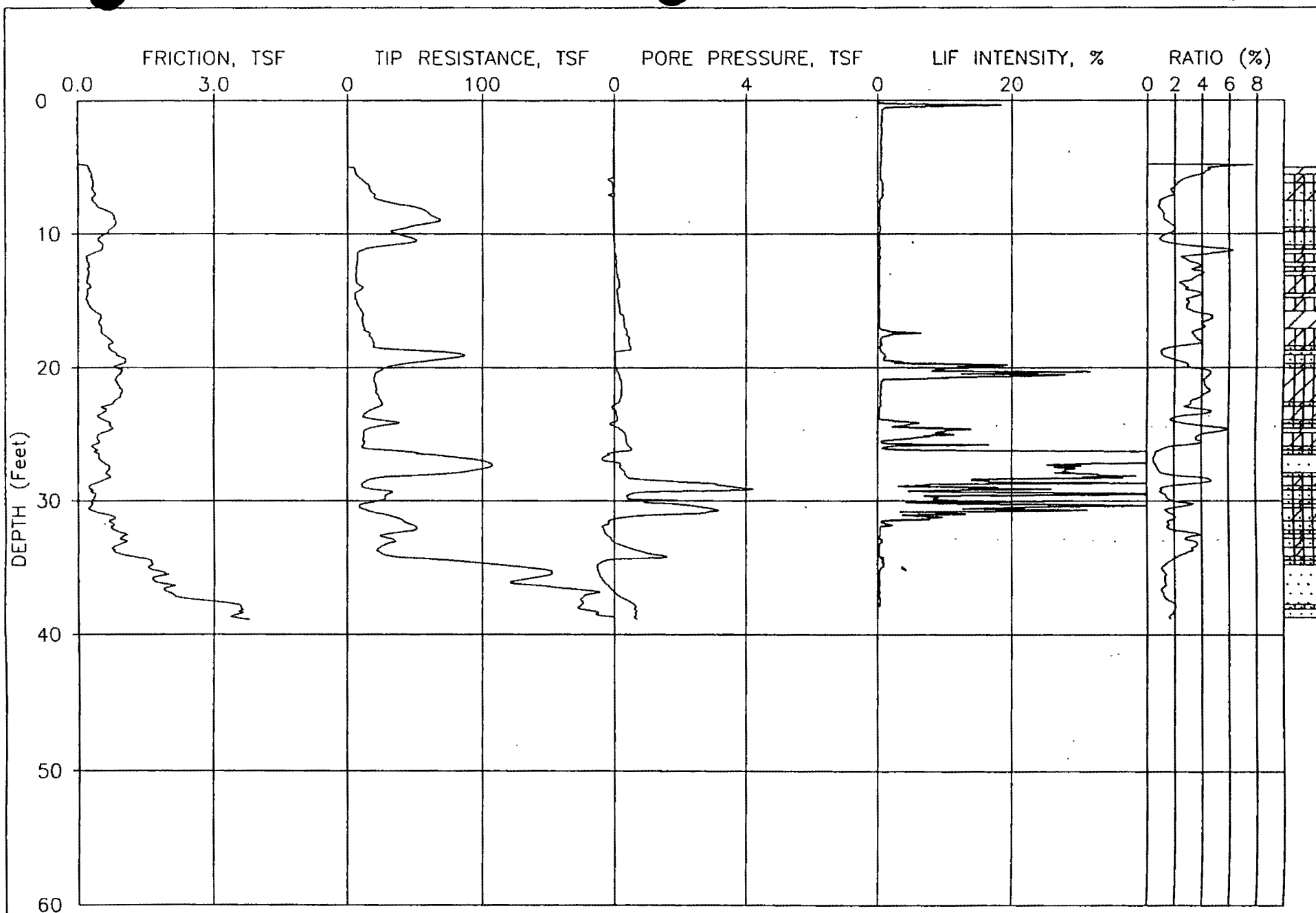
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DATE: 02-24-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

CPT NUMBER: R6

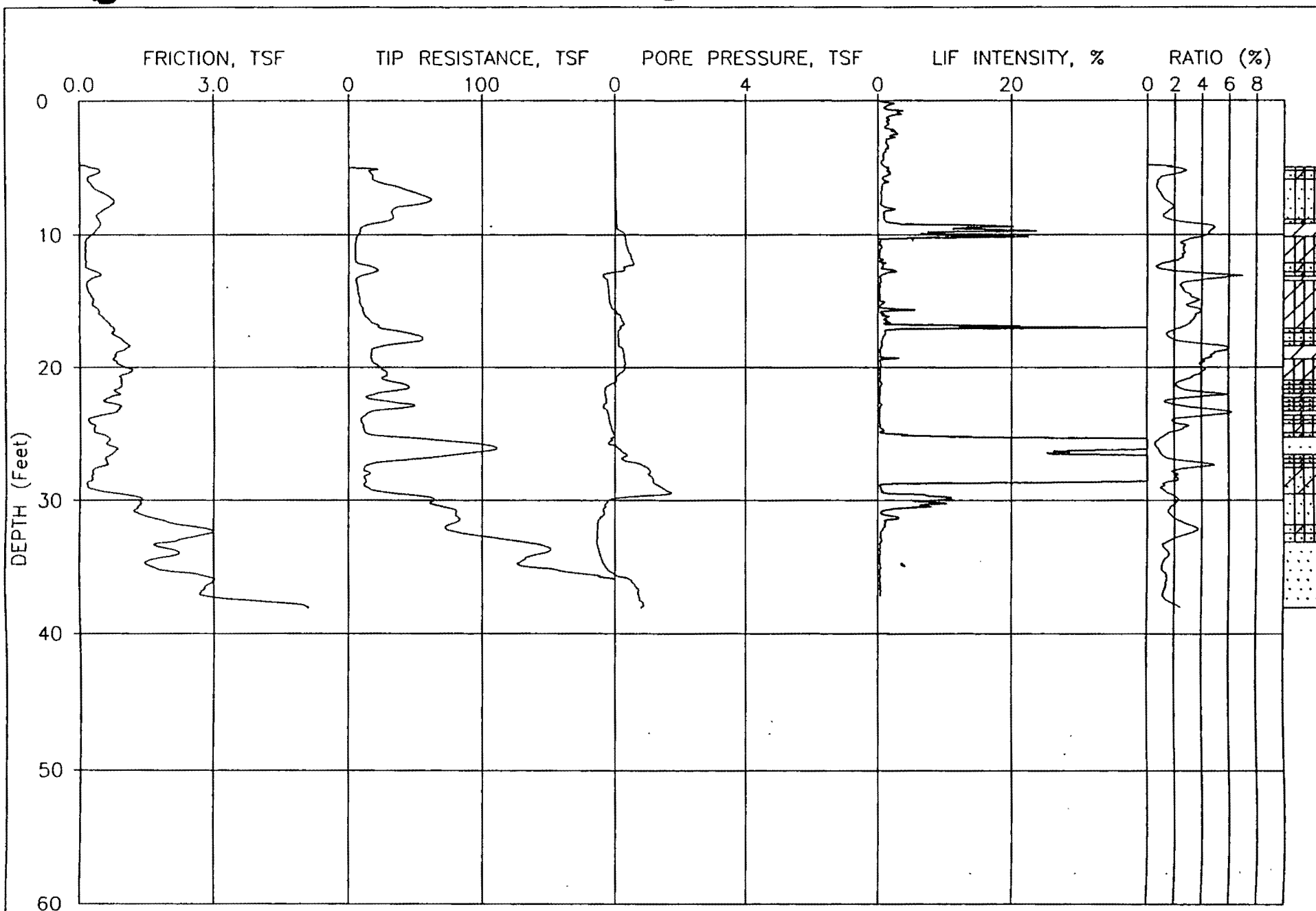
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ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1





JOB NUMBER: 03-0775

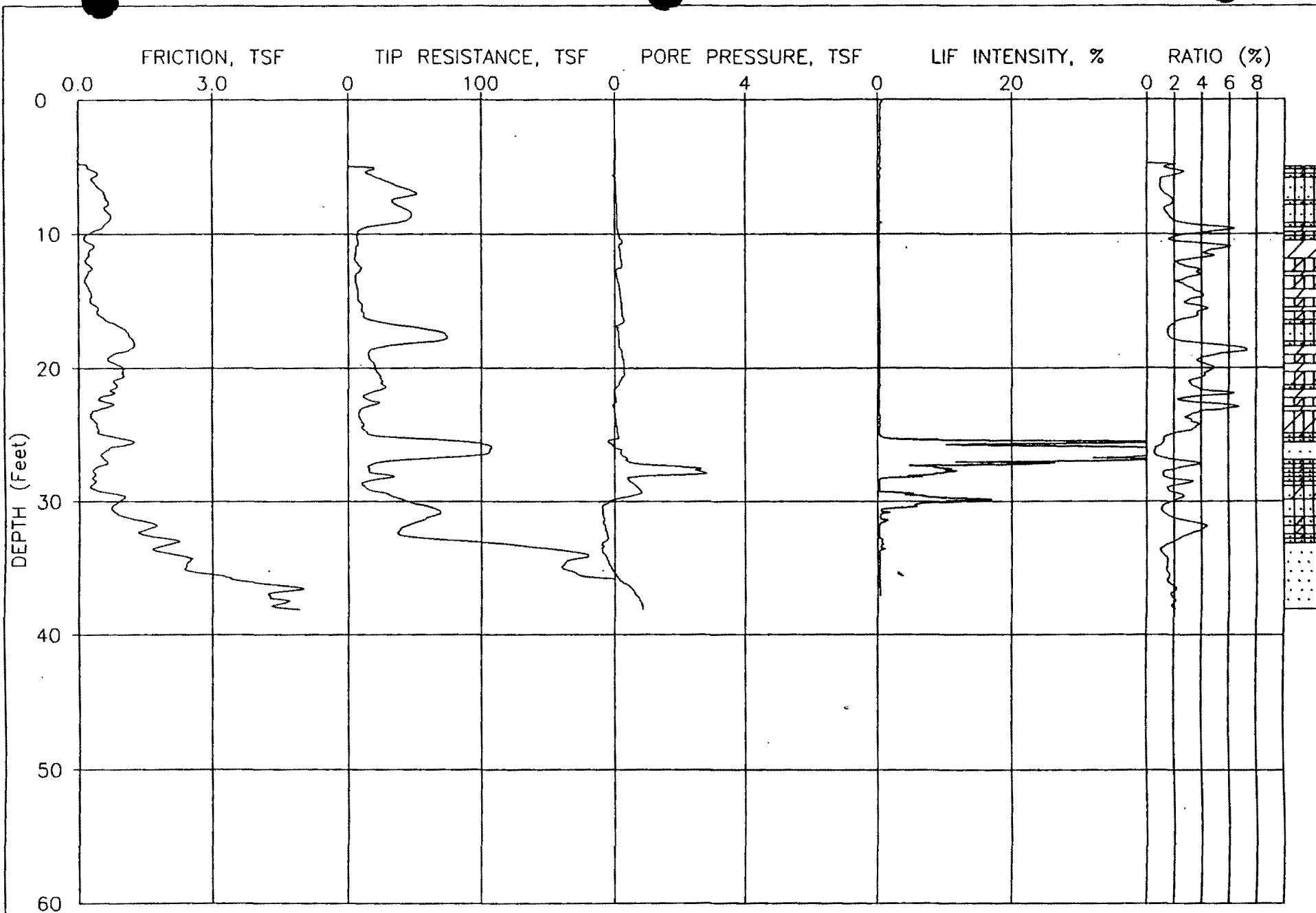
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DATE: 02-24-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

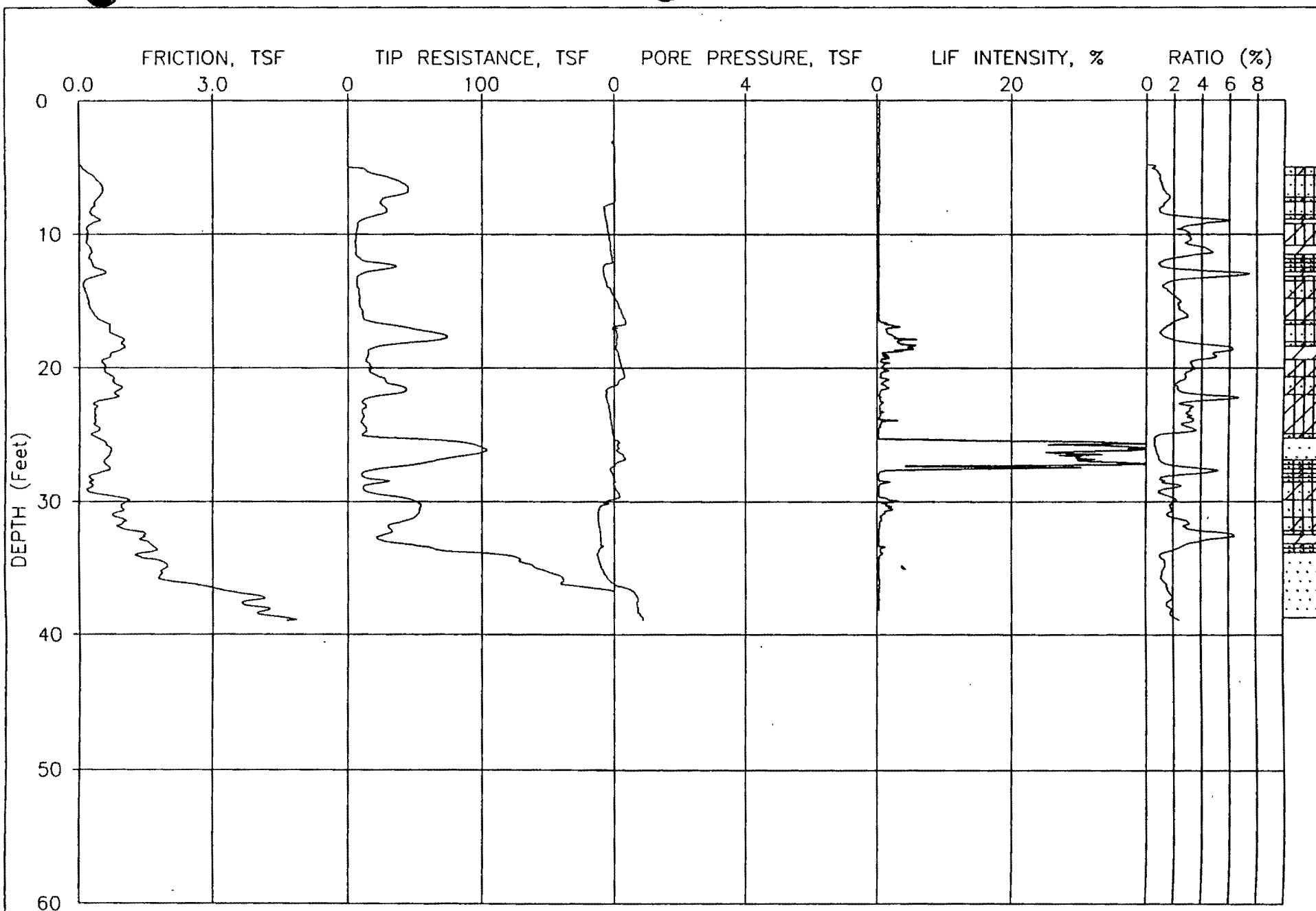
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ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

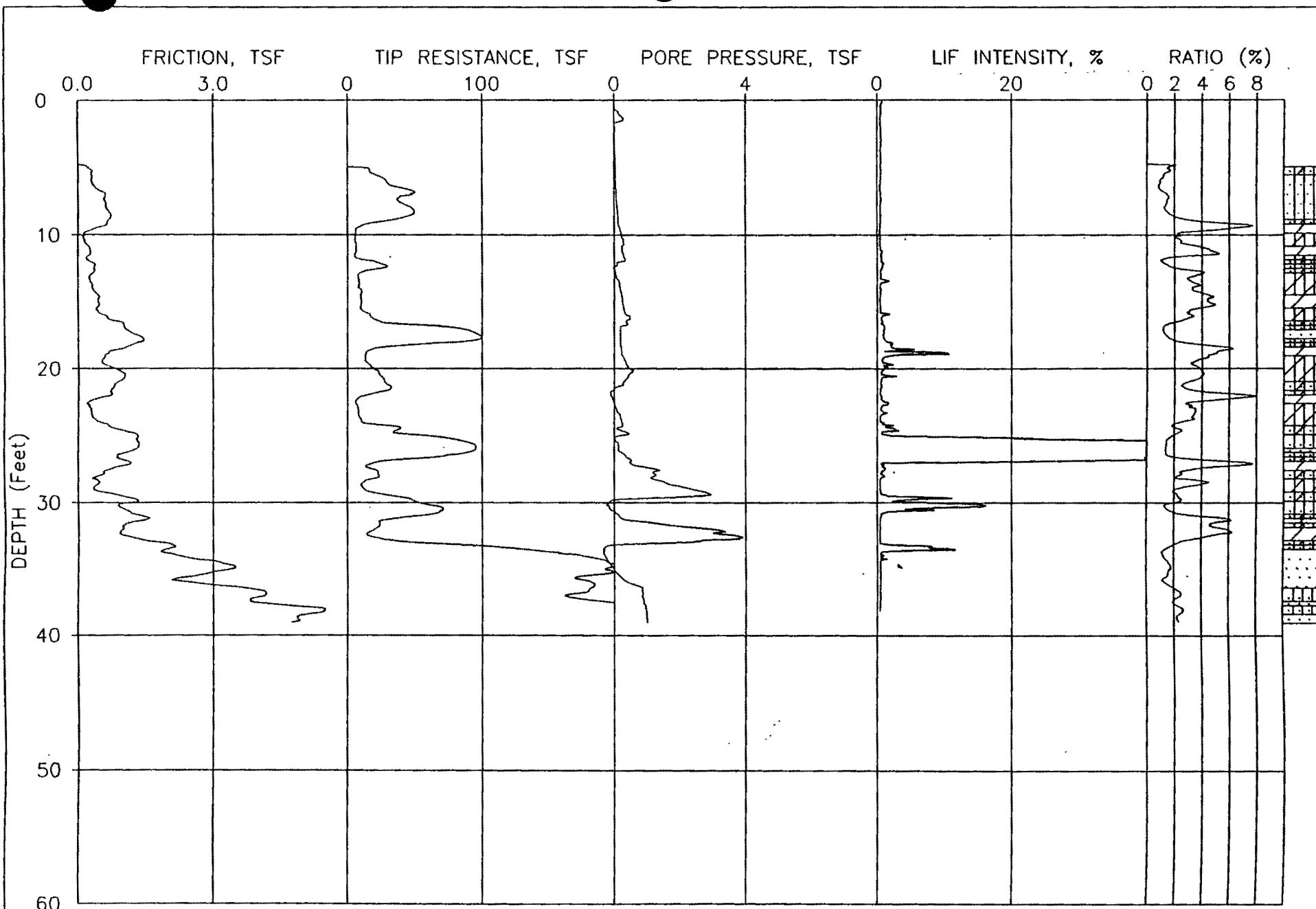
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DATE: 02-24-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

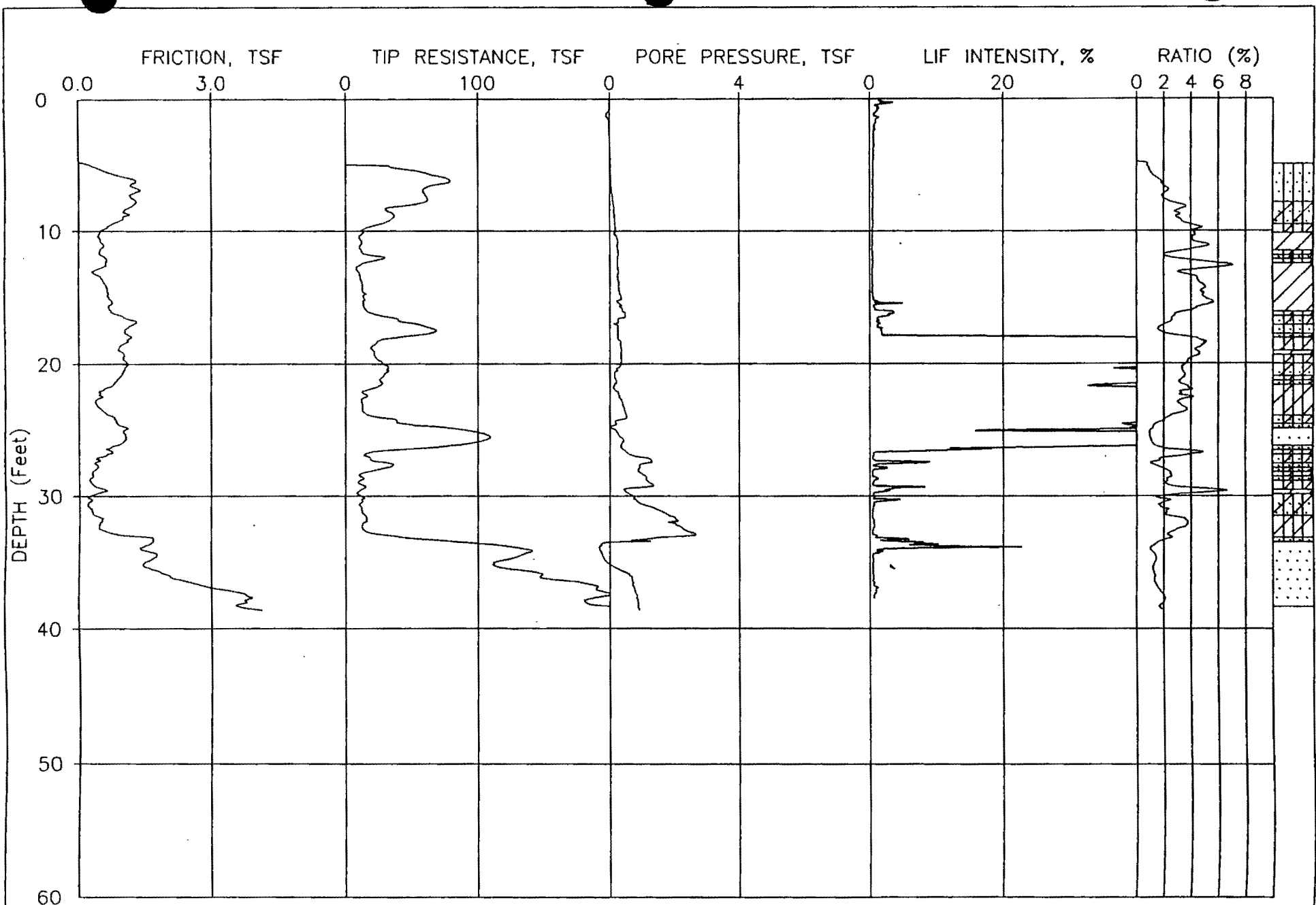
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DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

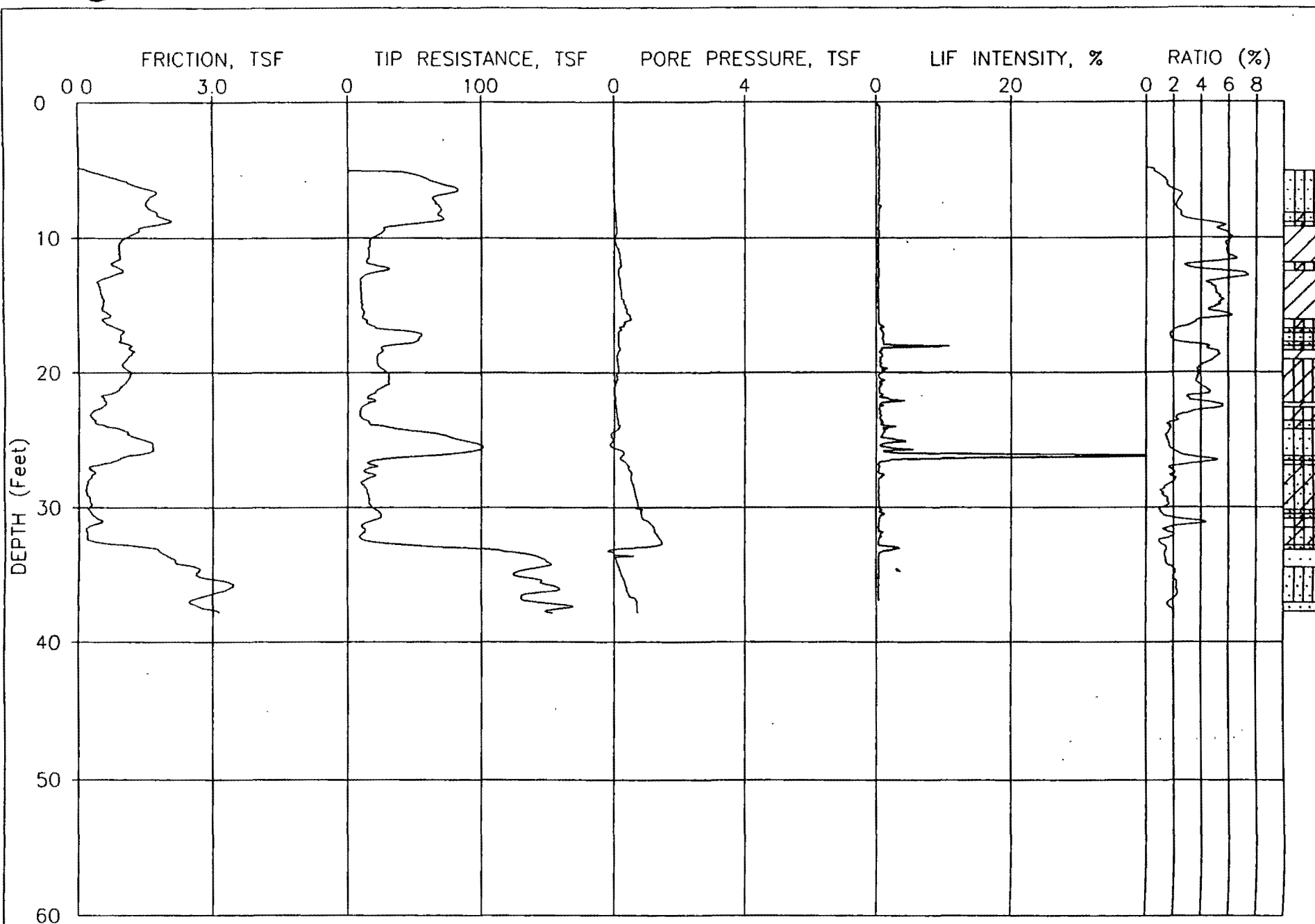
CPT NUMBER: R11

DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

CPT NUMBER: R12

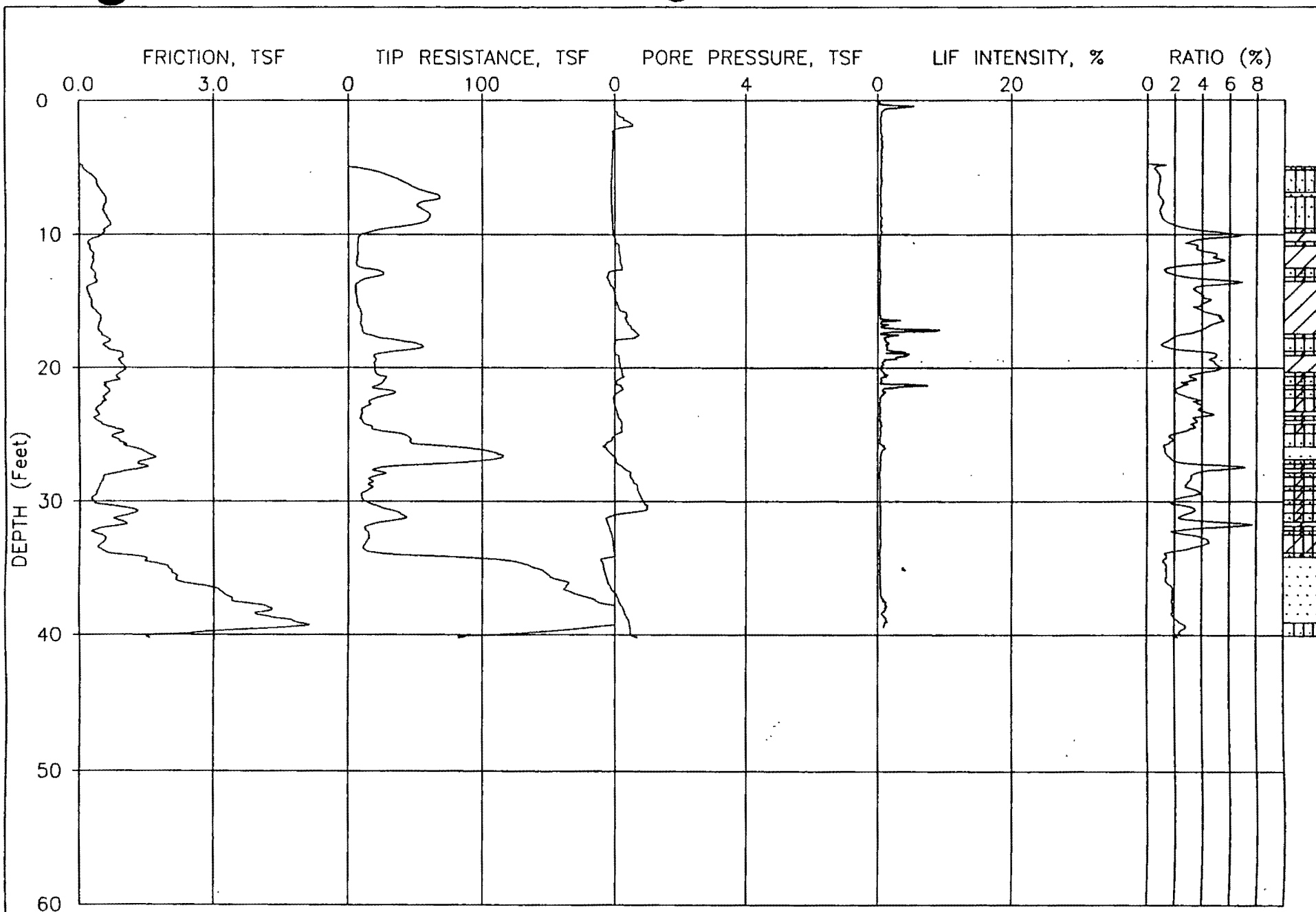
DATE: 02-25-2003

ELEVATION: 0 00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1





JOB NUMBER: 03-0775

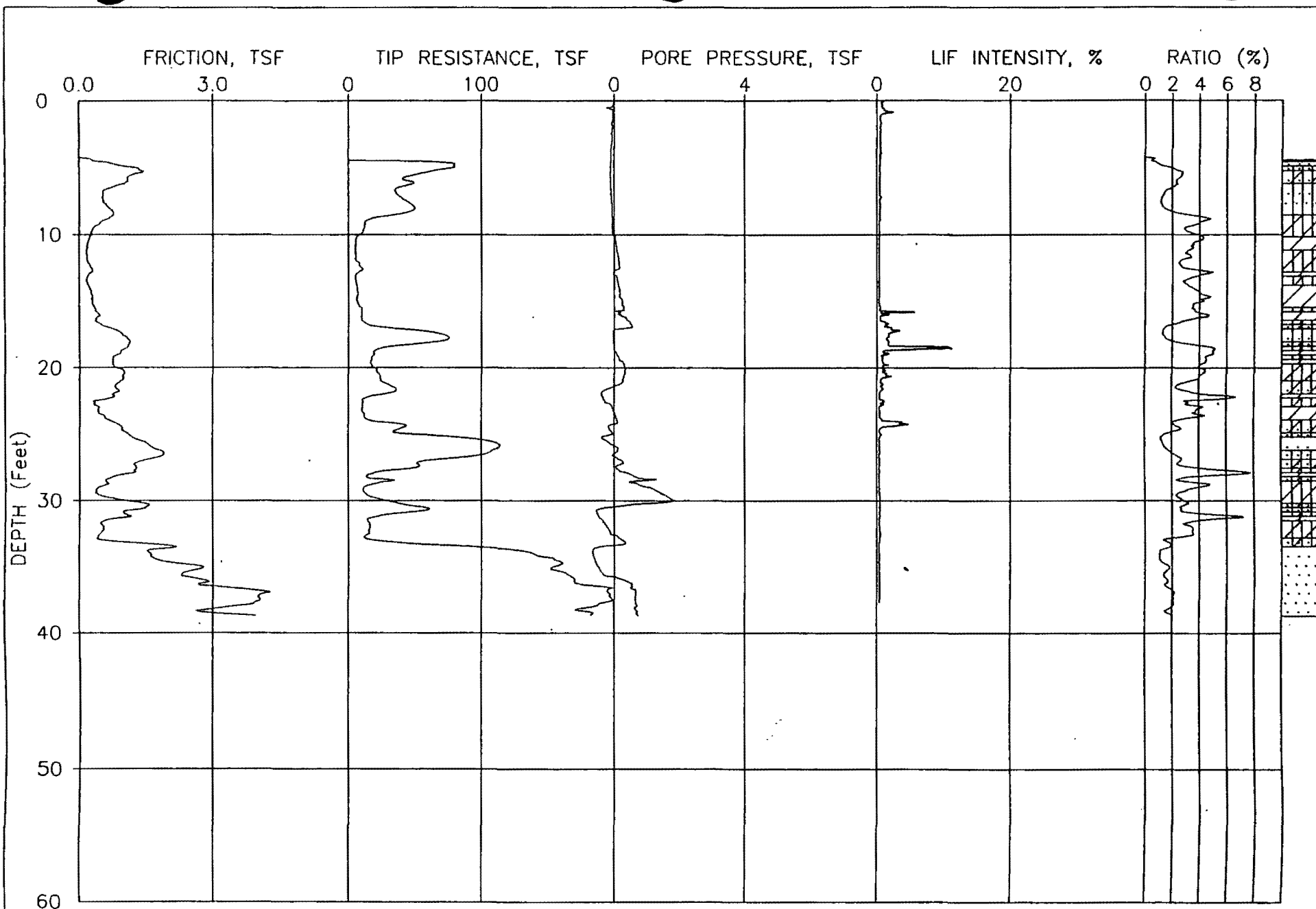
CPT NUMBER: R13

DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

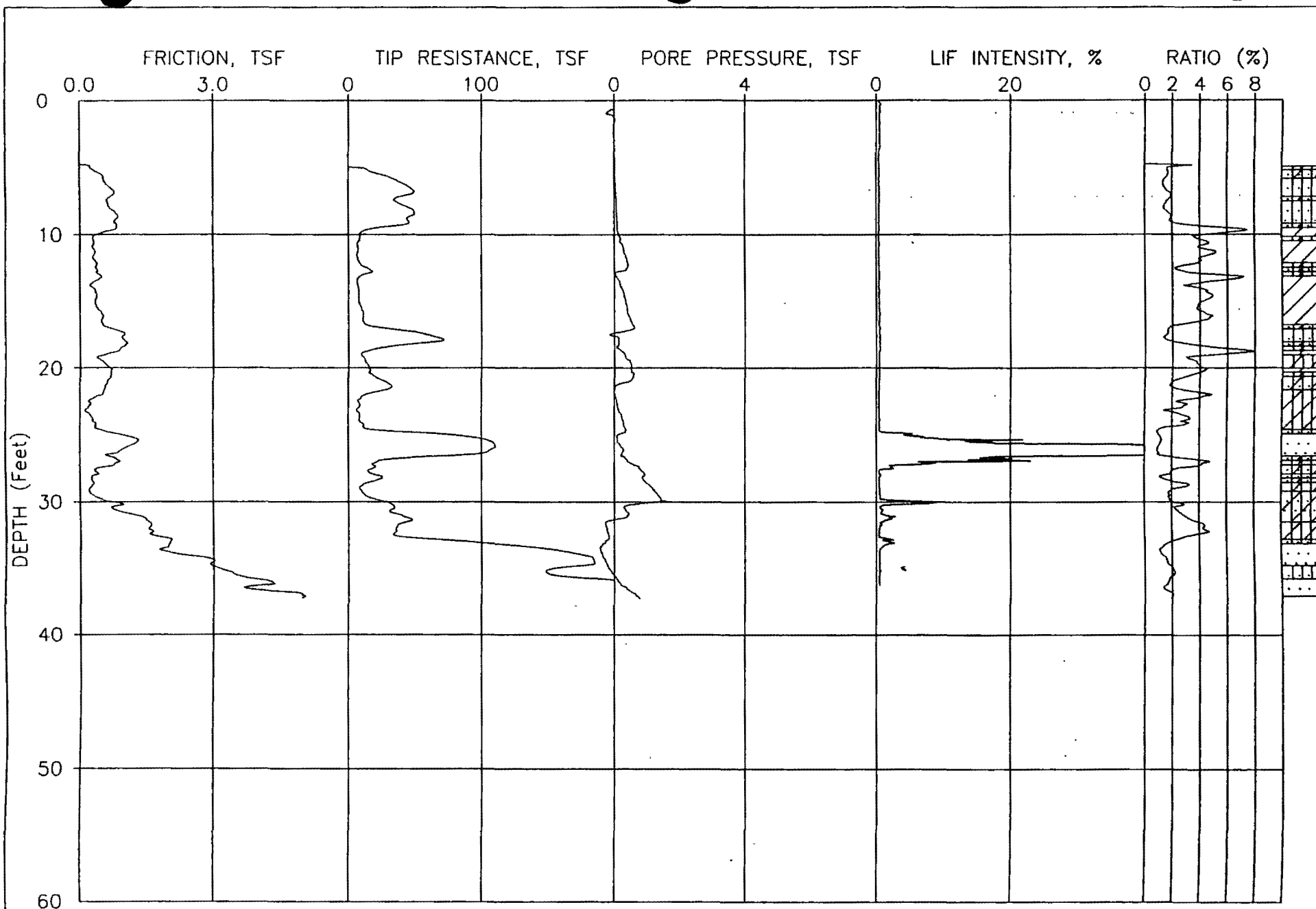
CPT NUMBER: R14

DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

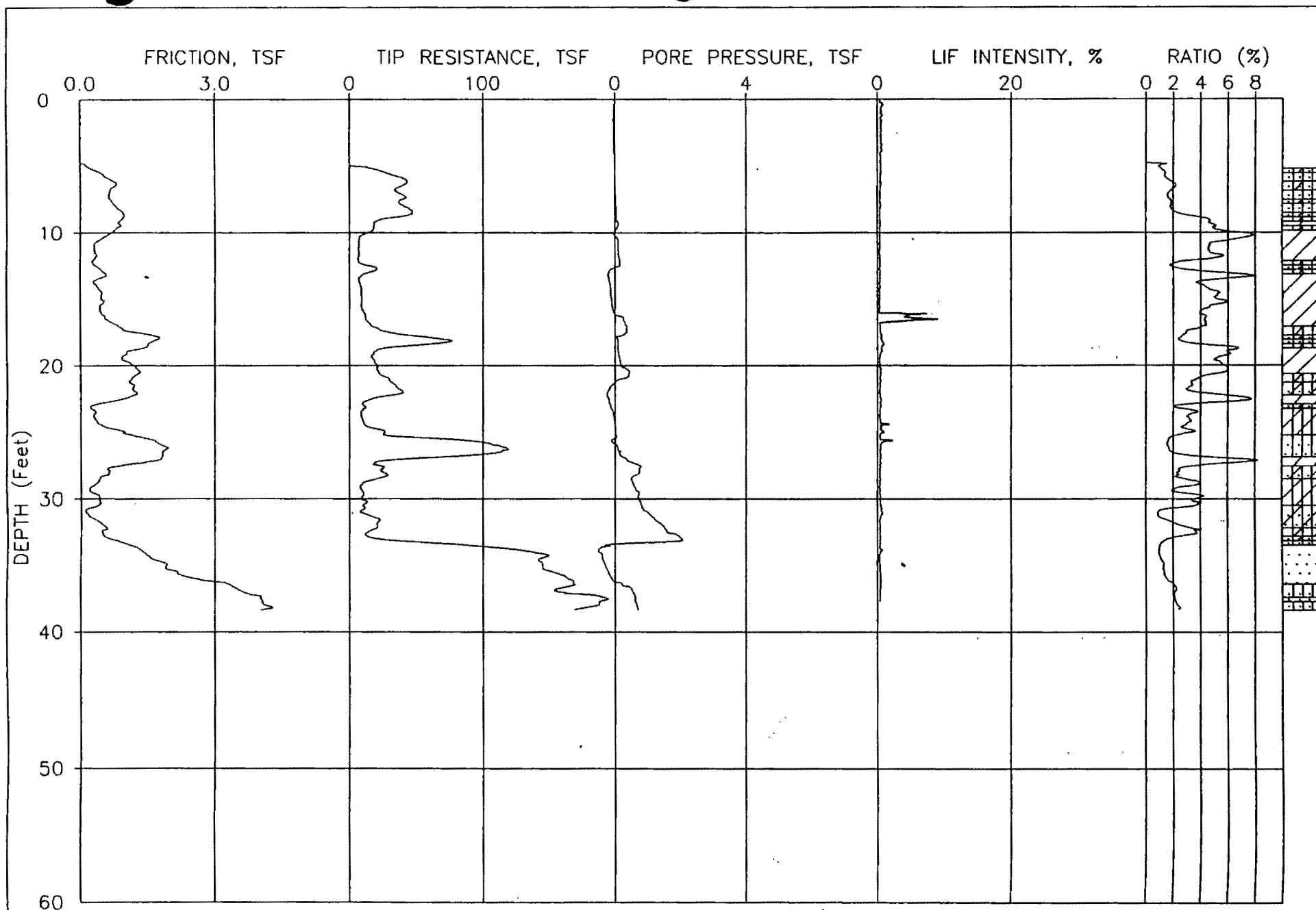
CPT NUMBER: R15

DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

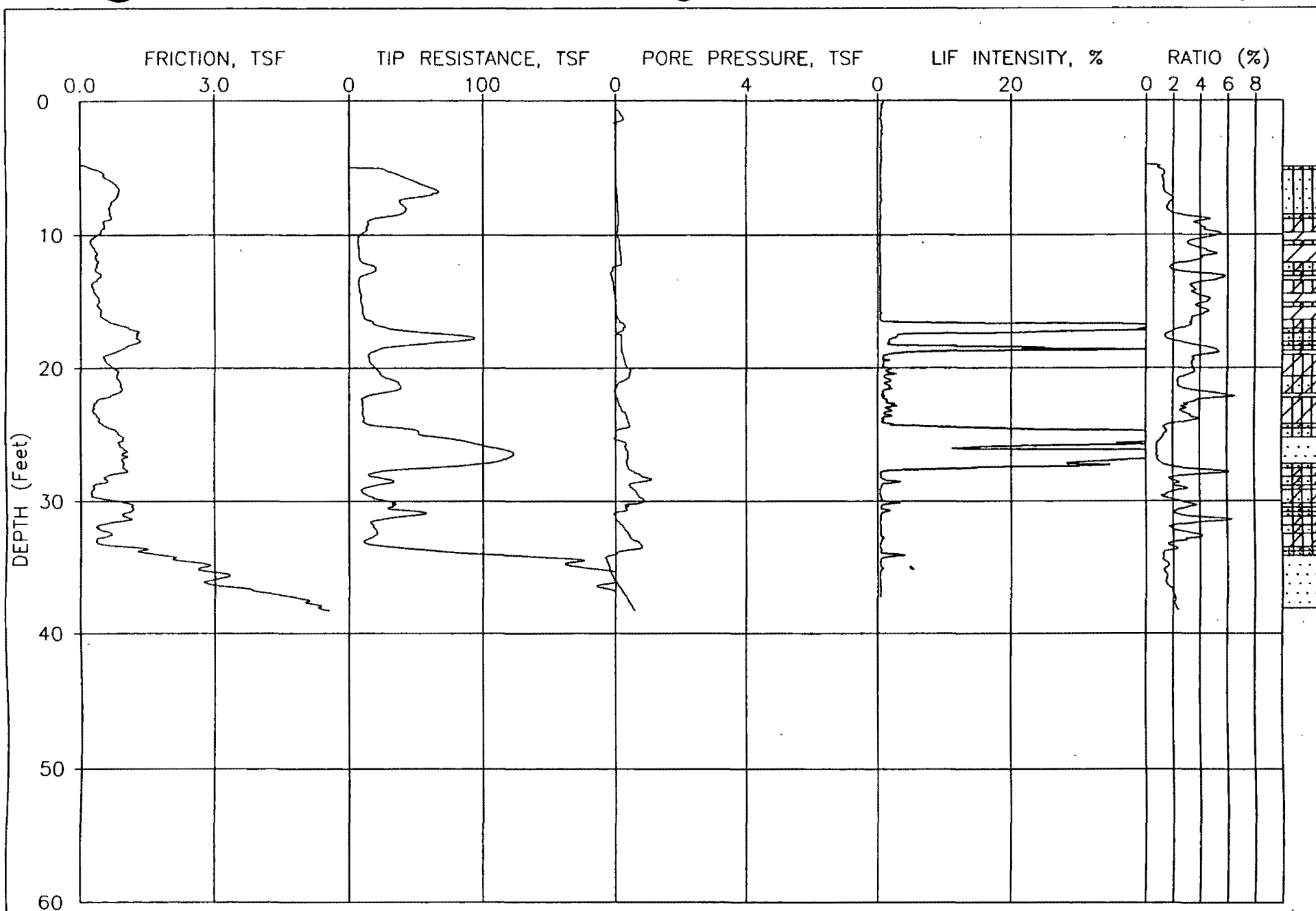
CPT NUMBER: R16

DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1



JOB NUMBER: 03-0775

CPT NUMBER: R17

DATE: 02-25-2003

ELEVATION: 0.00

CONE NUMBER: F7.5CKEW1135

PLATE: 1 OF 1

ROST™  
LOGS

# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 09:16:30

ROST Unit: 1

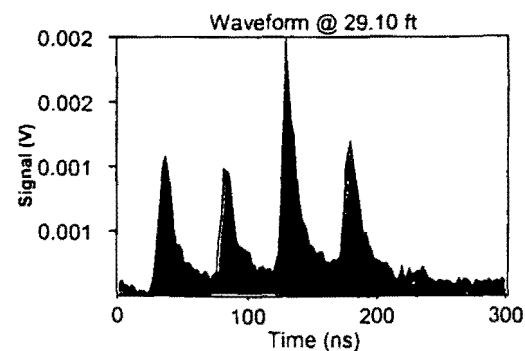
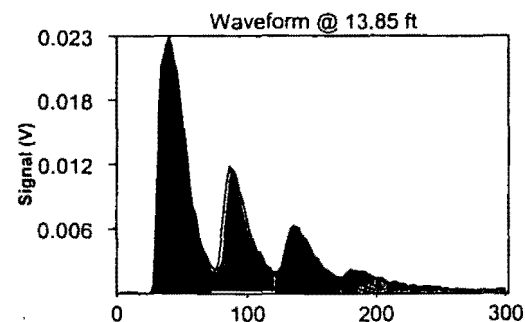
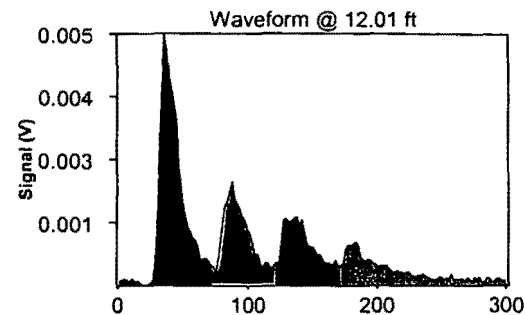
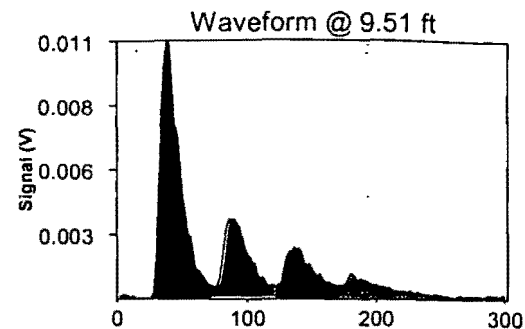
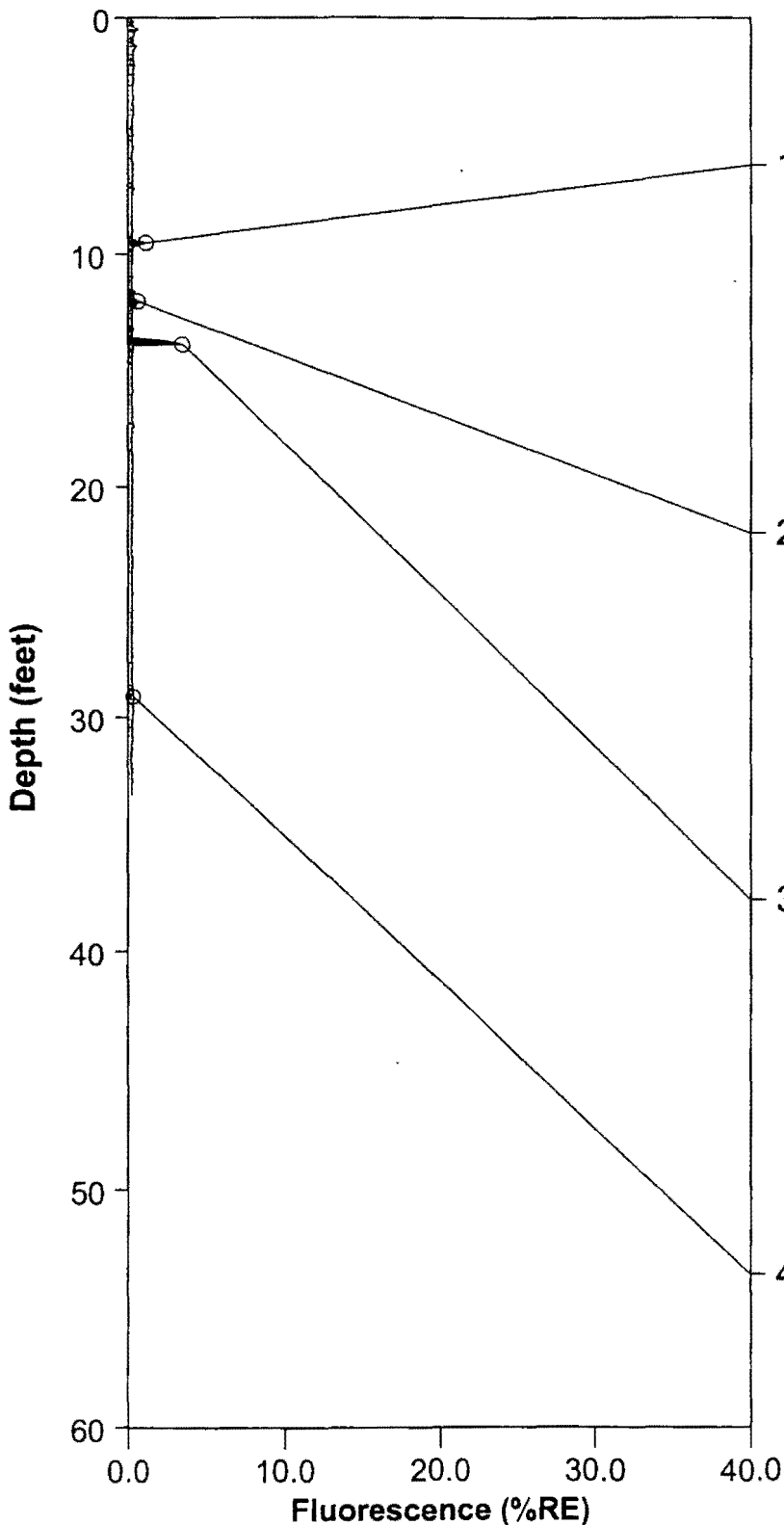
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 3.46% @ 13.85 ft

Final depth BGS: 33.33 ft

R1





# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 11:37:49

ROST Unit: 1

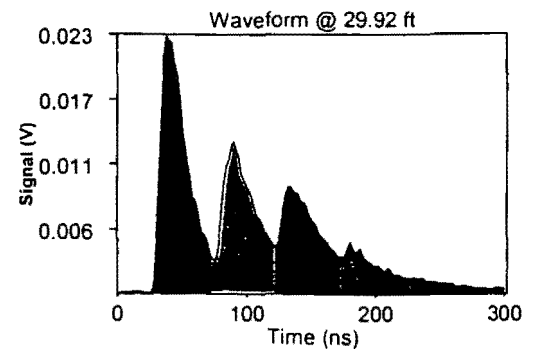
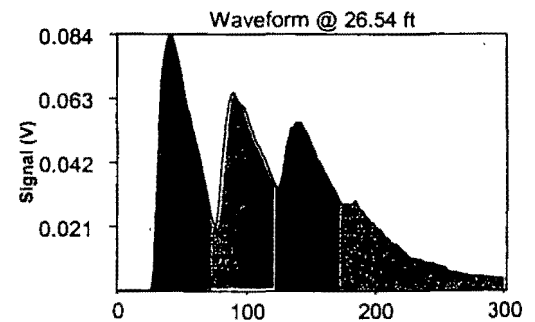
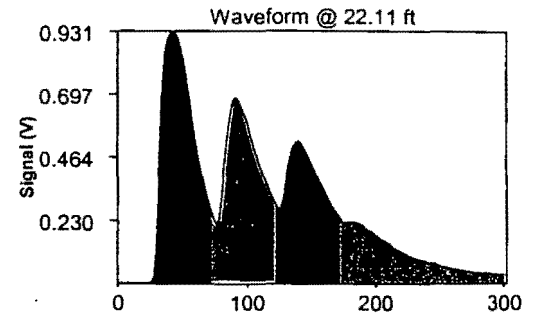
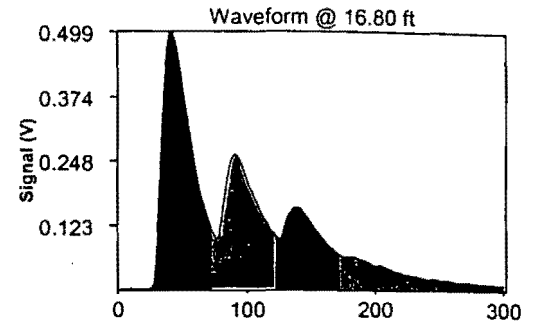
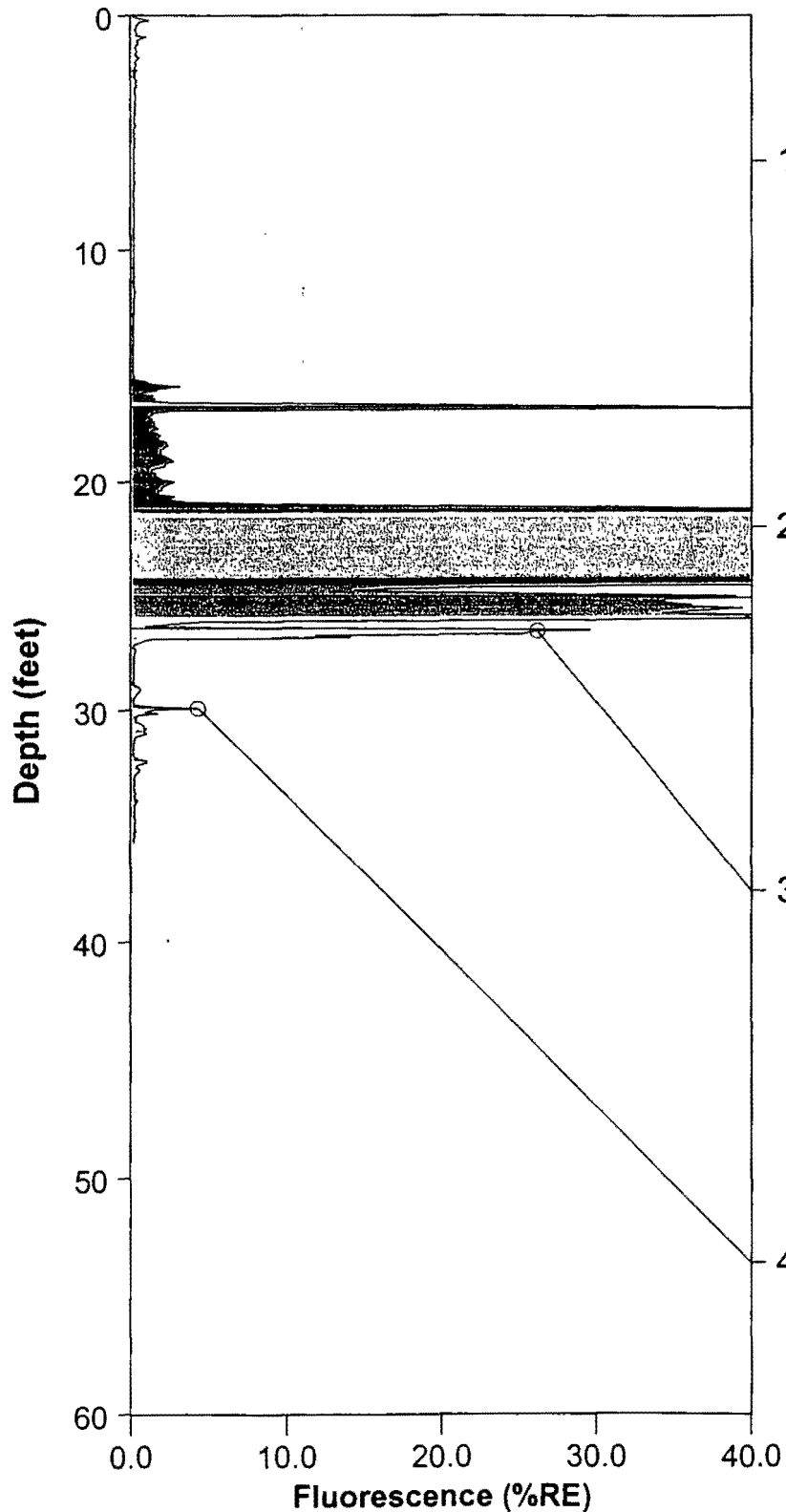
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 257.26% @ 24.05 ft

Final depth BGS: 35.73 ft

R2



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 11:37:49

ROST Unit: 1

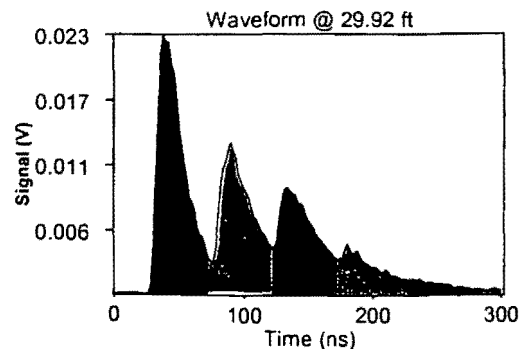
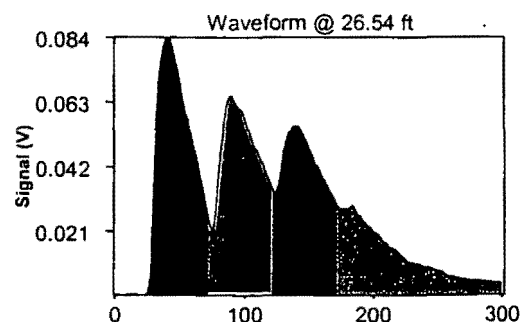
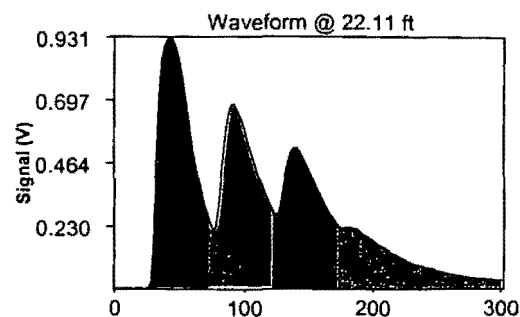
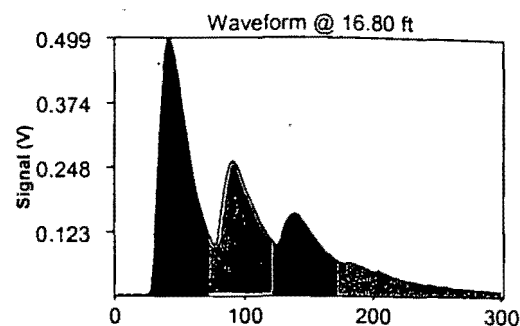
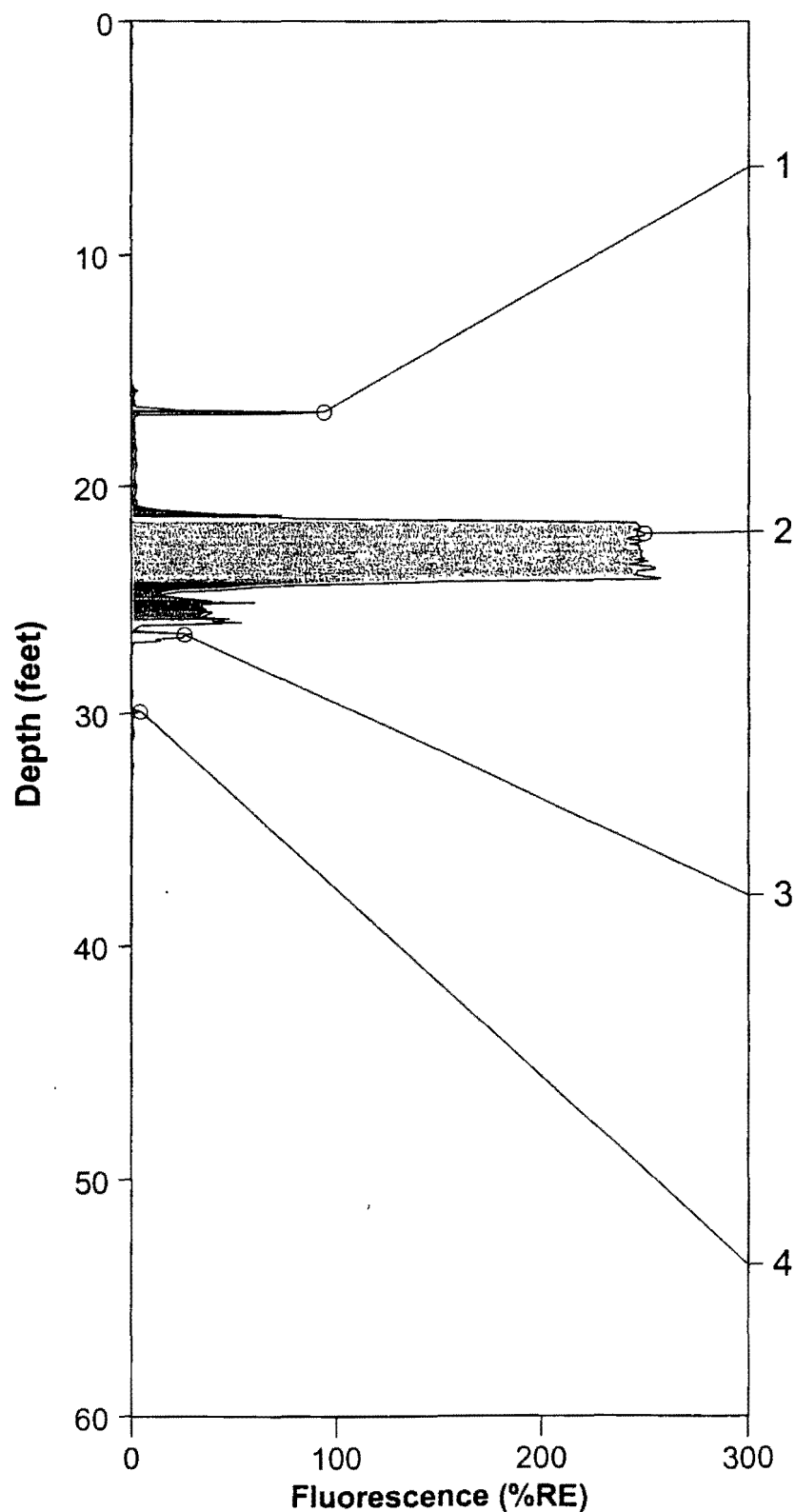
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 257.26% @ 24.05 ft

Final depth BGS: 35.73 ft

R2



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 12:49:28

ROST Unit: 1

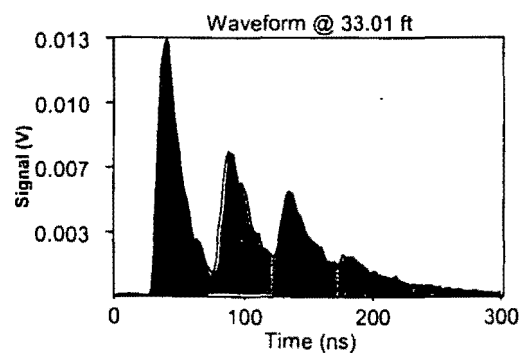
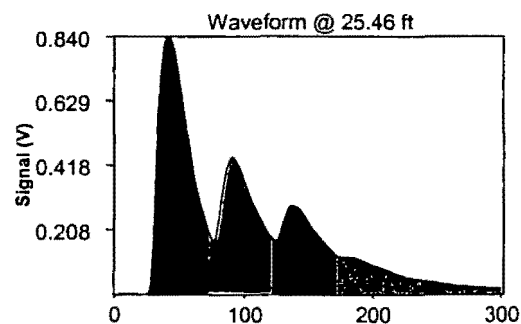
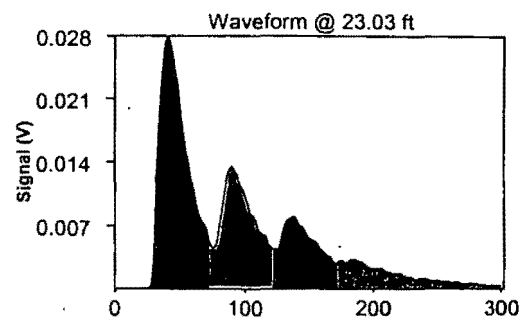
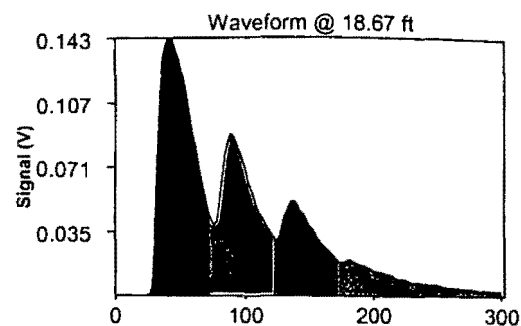
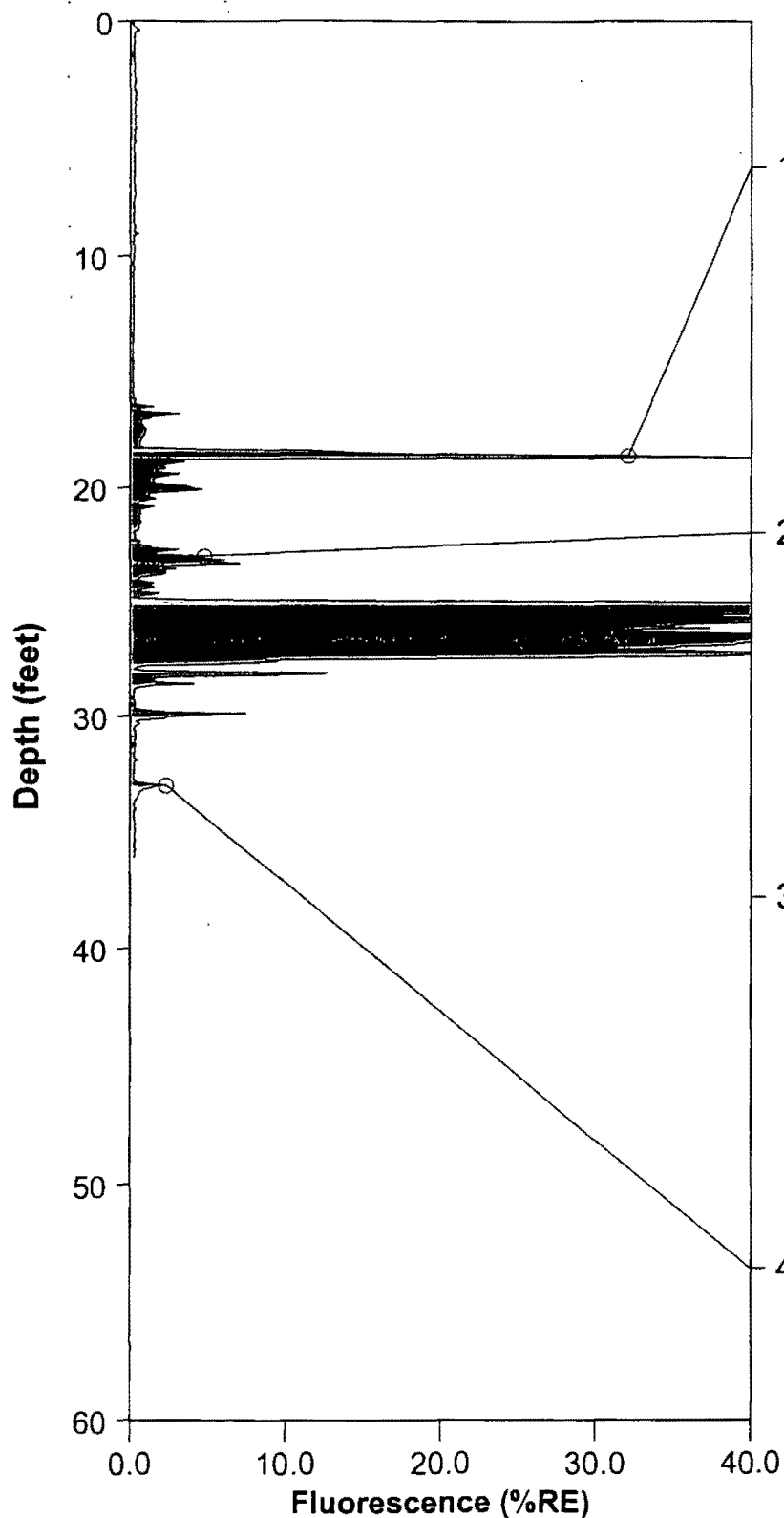
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 206.40% @ 25.33 ft

Final depth BGS: 36.12 ft

R3



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 12:49:28

ROST Unit: 1

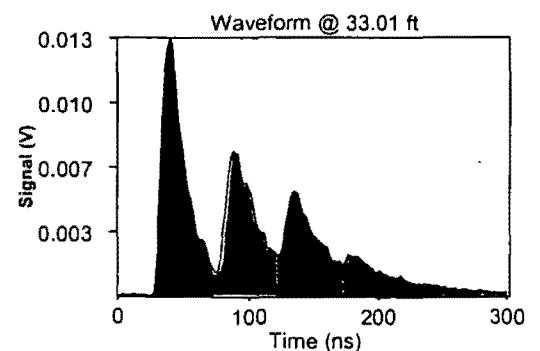
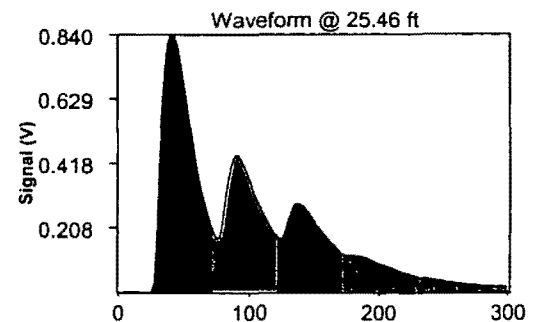
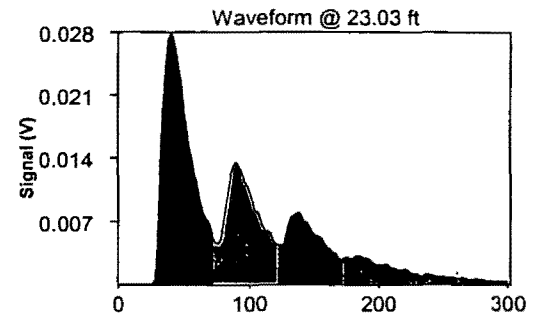
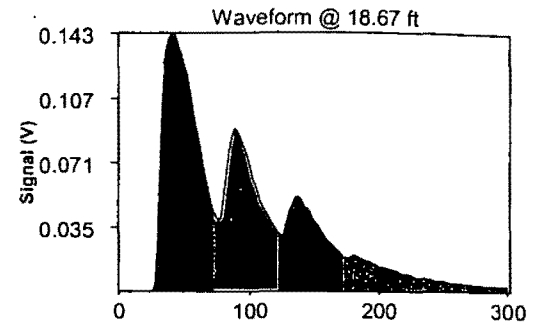
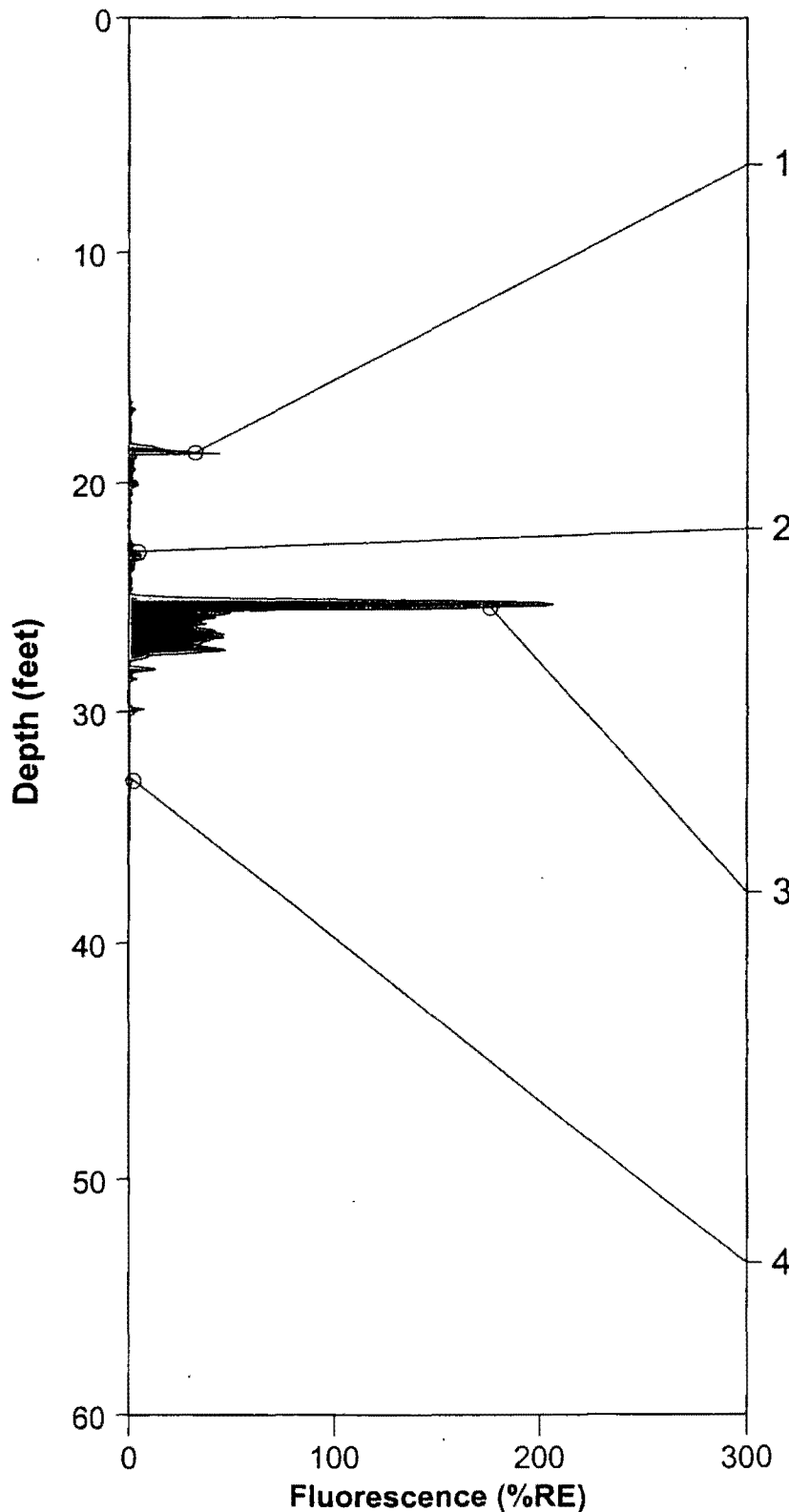
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 206.40% @ 25.33 ft

Final depth BGS: 36.12 ft

R3



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 10:10:17

ROST Unit: 1

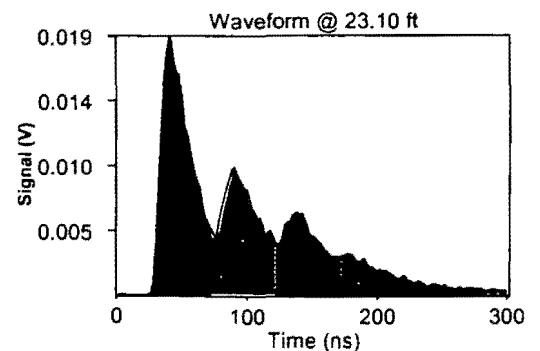
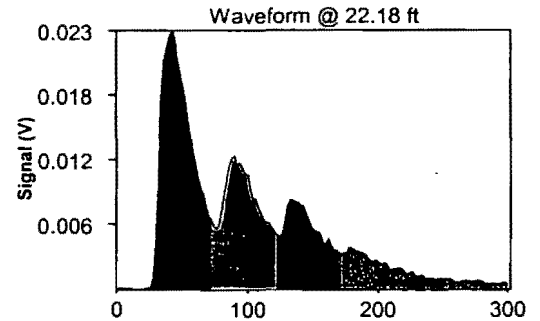
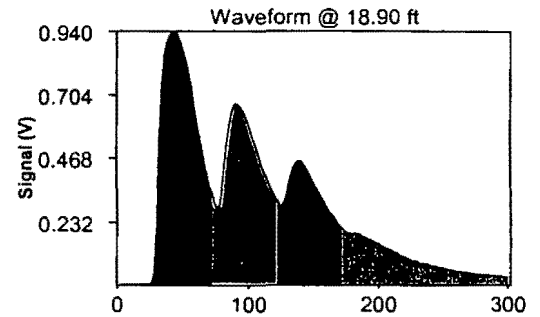
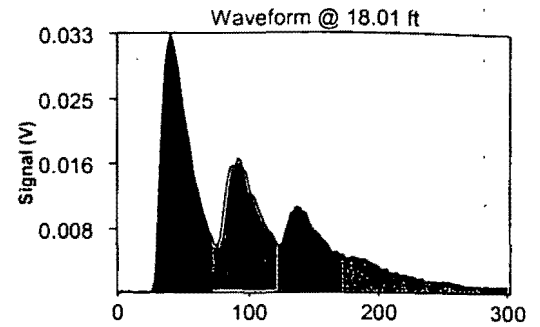
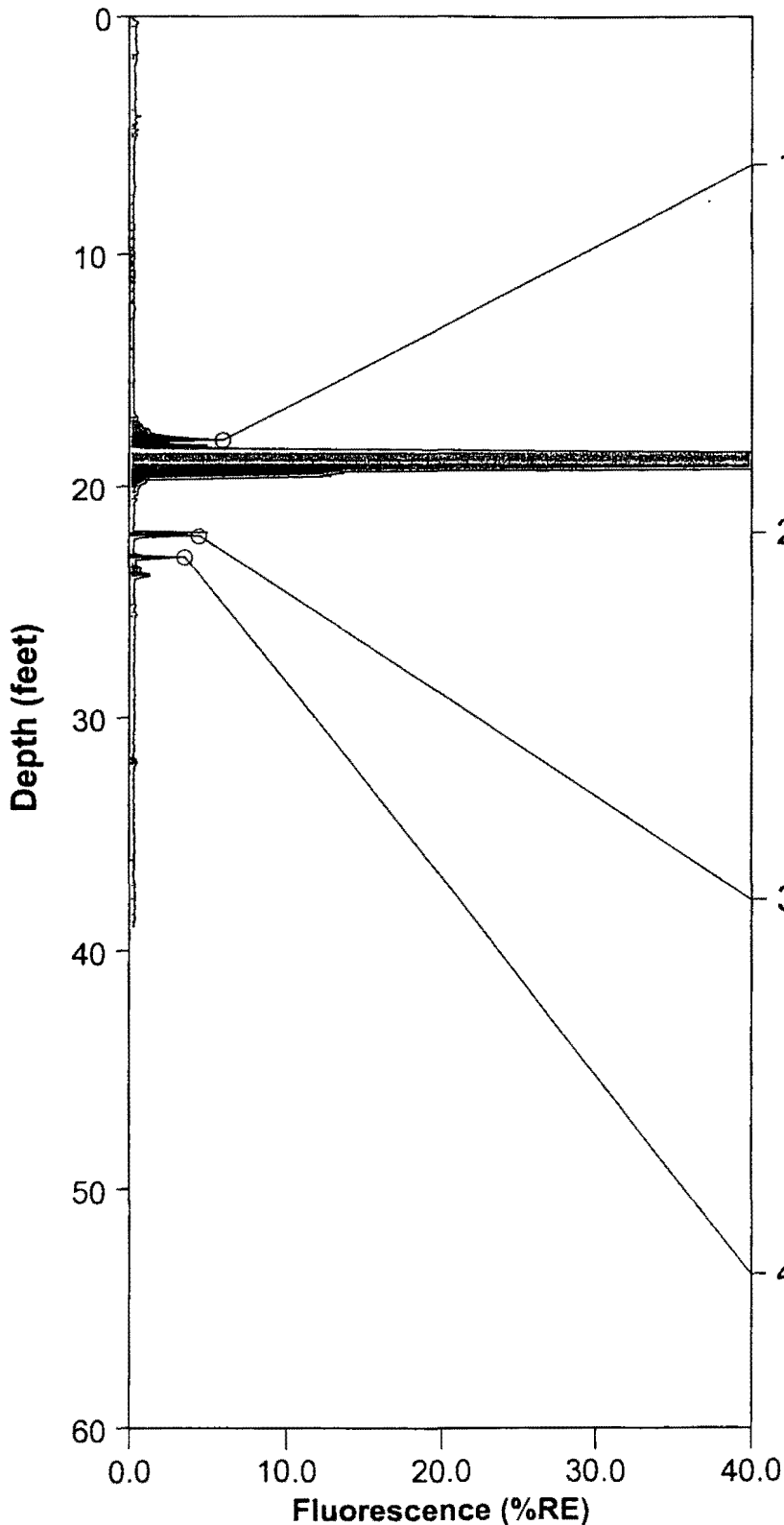
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 280.55% @ 19.03 ft

Final depth BGS: 39.01 ft

R4



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 10:58:11

ROST Unit: 1

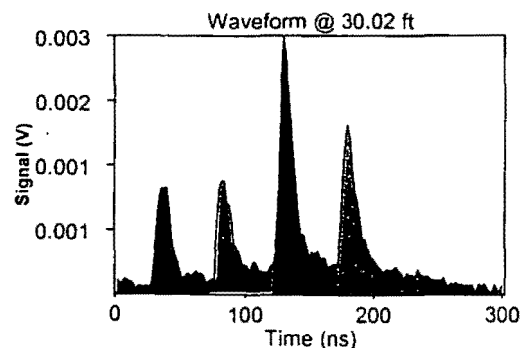
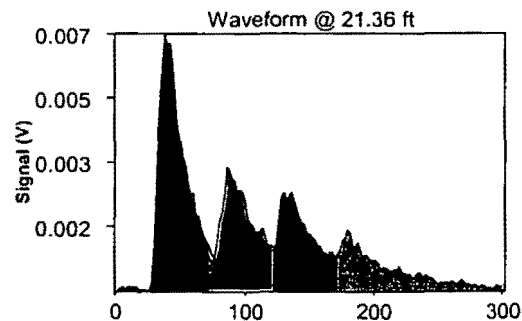
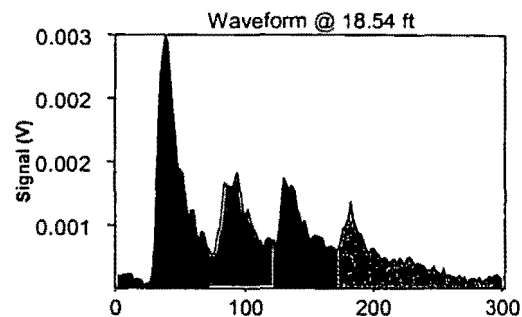
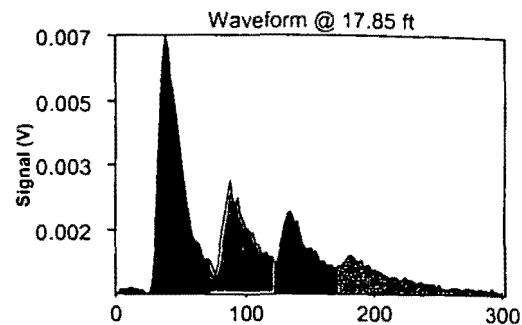
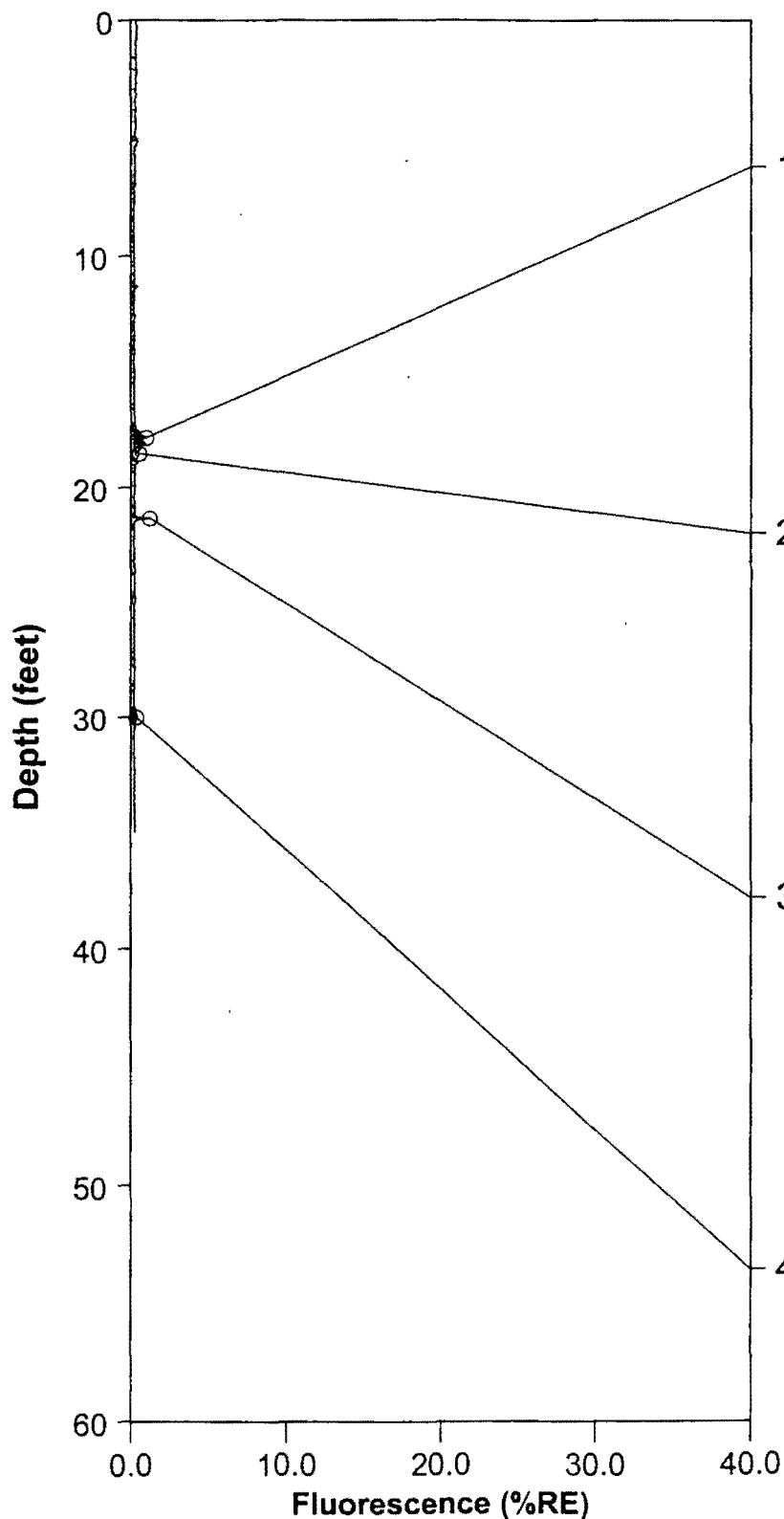
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 1.22% @ 21.36 ft

Final depth BGS: 35.01 ft

R5



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 13:23:05

ROST Unit: 1

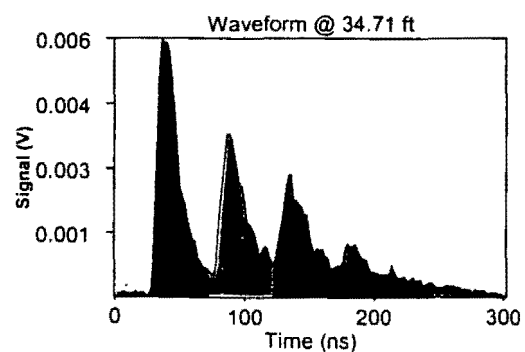
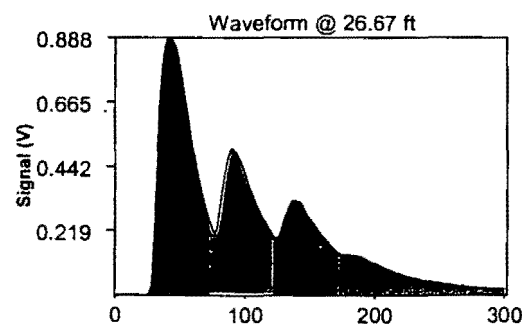
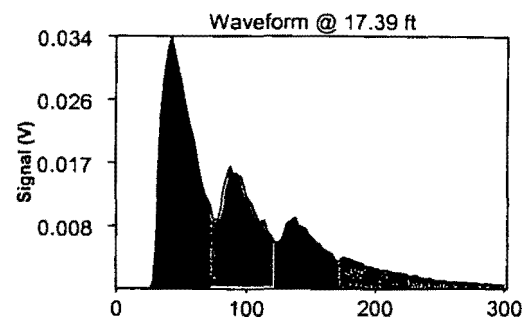
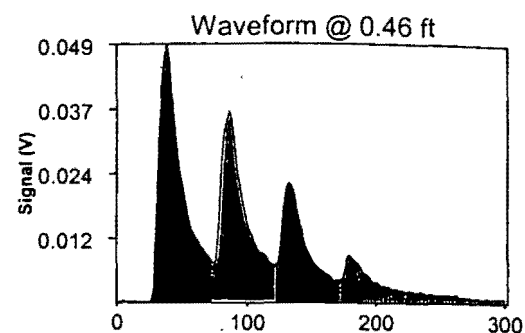
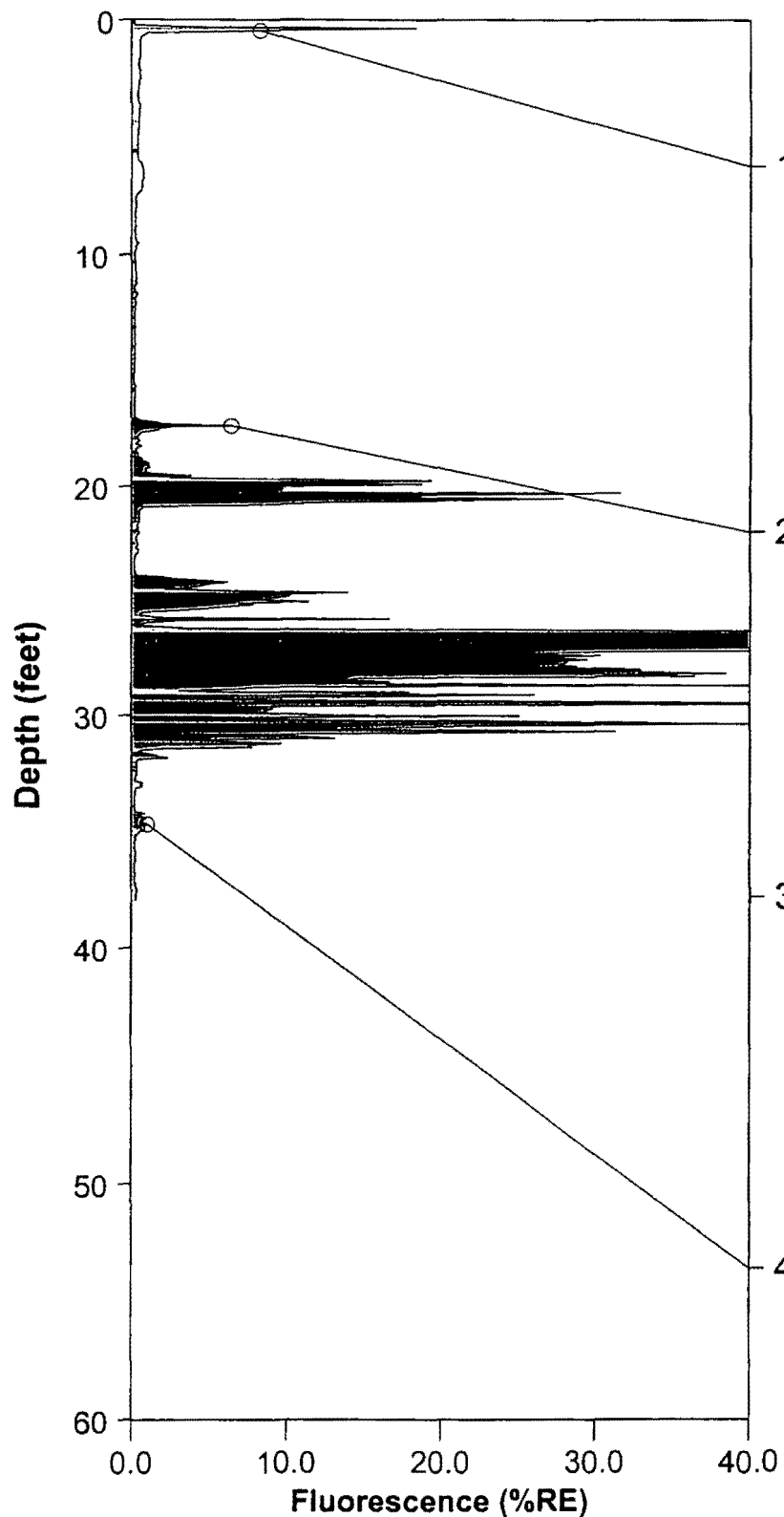
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 192.93% @ 26.67 ft

Final depth BGS: 37.99 ft

R6





# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 13:23:05

ROST Unit: 1

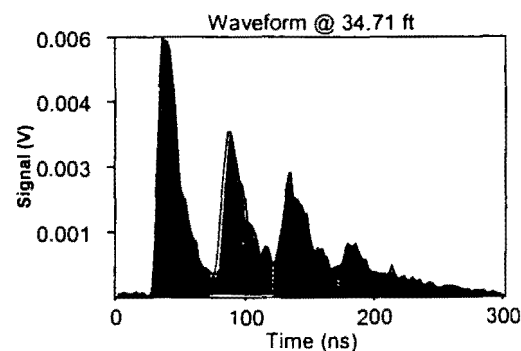
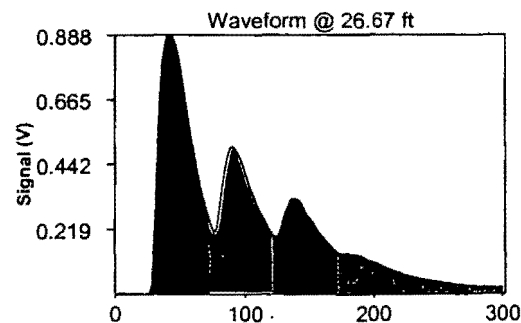
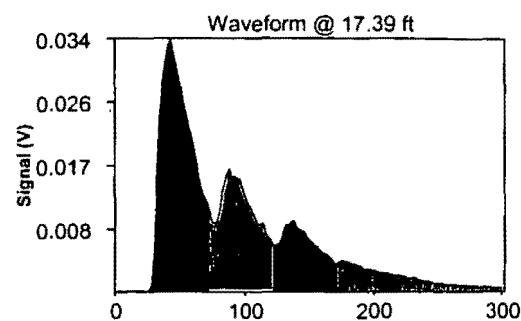
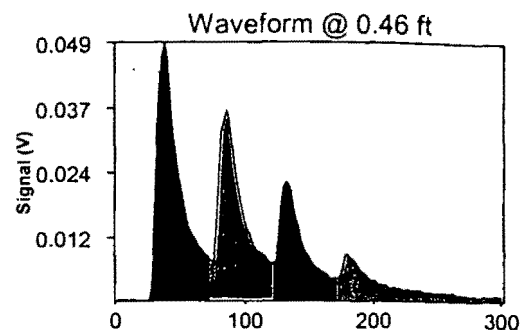
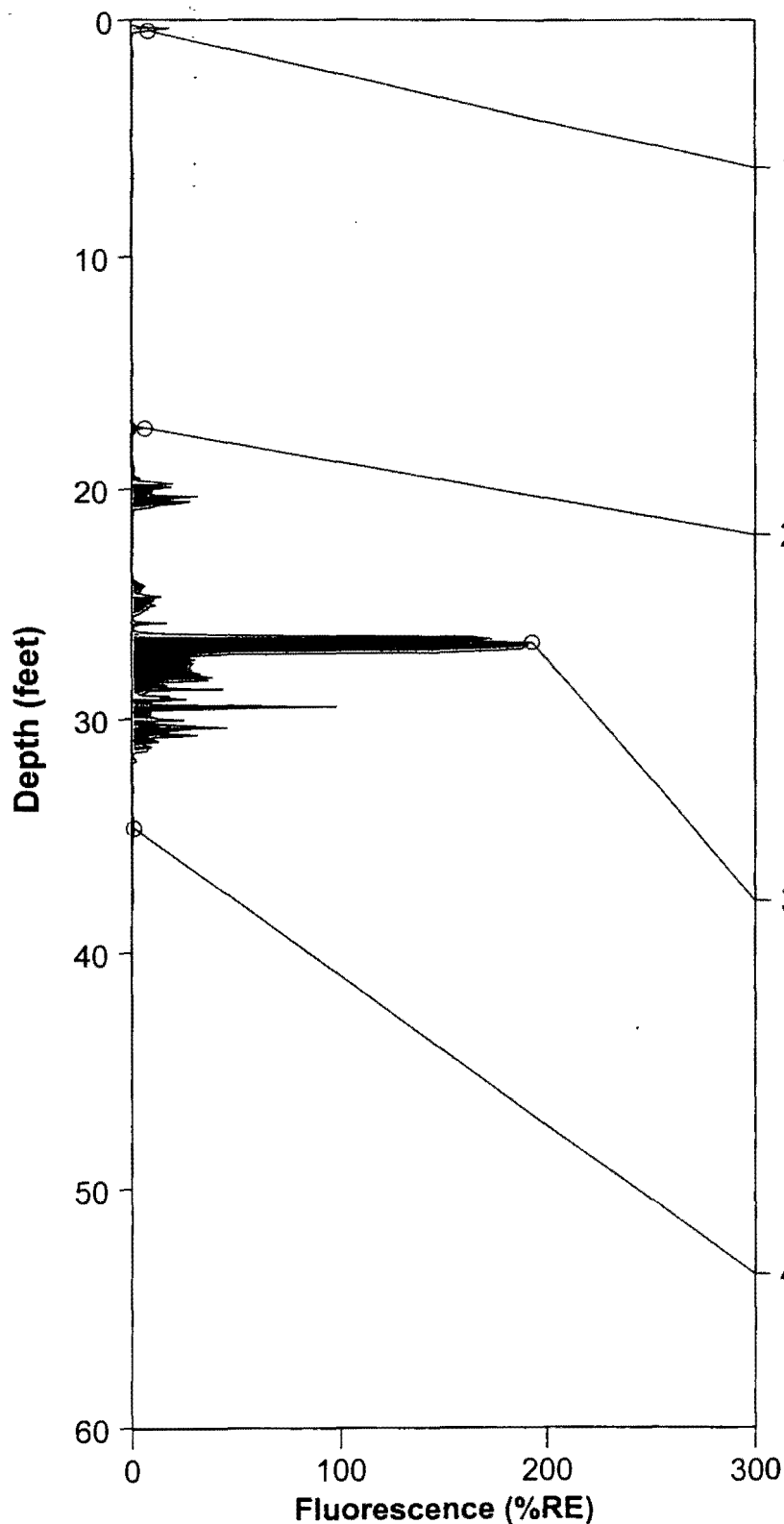
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 192.93% @ 26.67 ft

Final depth BGS: 37.99 ft

R6



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 14:03:15

ROST Unit: 1

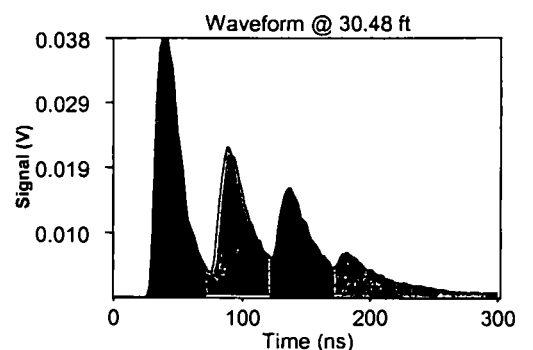
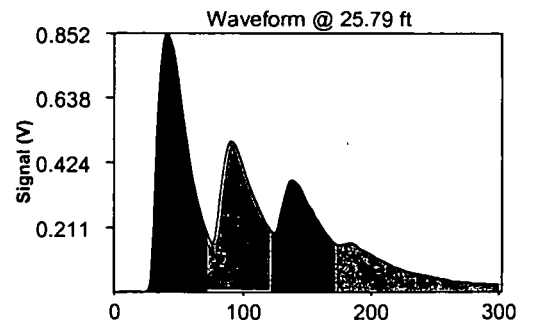
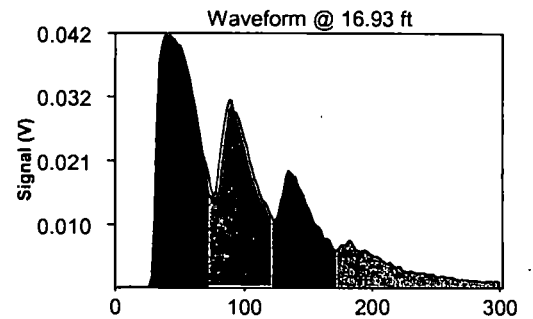
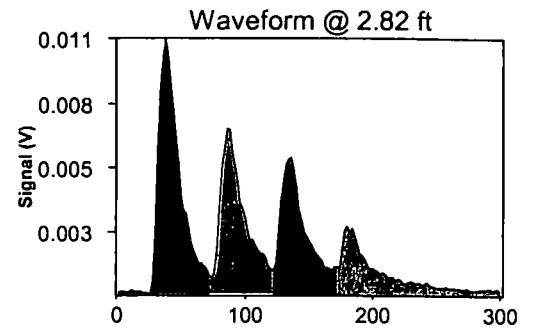
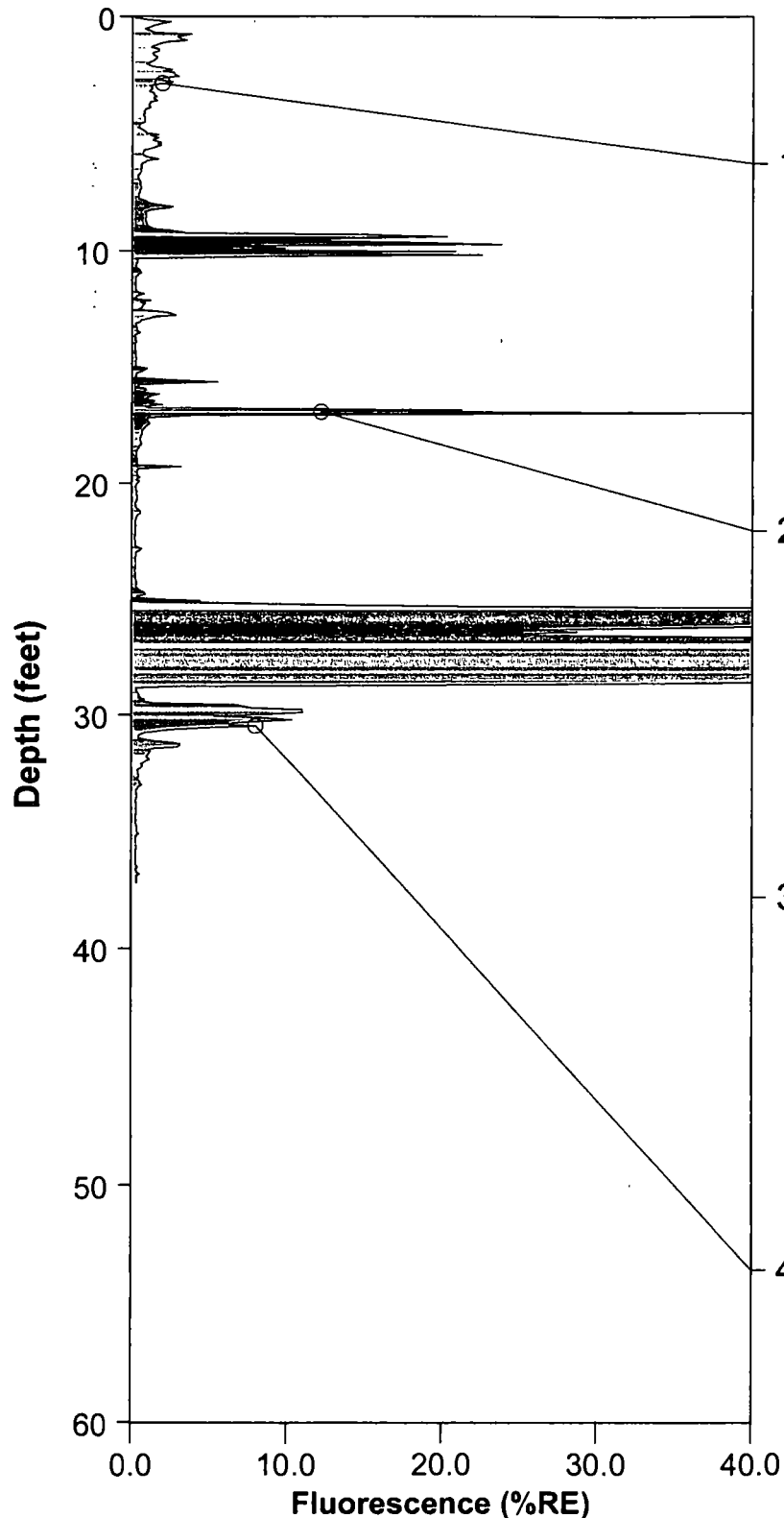
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 233.49% @ 27.79 ft

Final depth BGS: 37.24 ft

R7



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 14:03:15

ROST Unit: 1

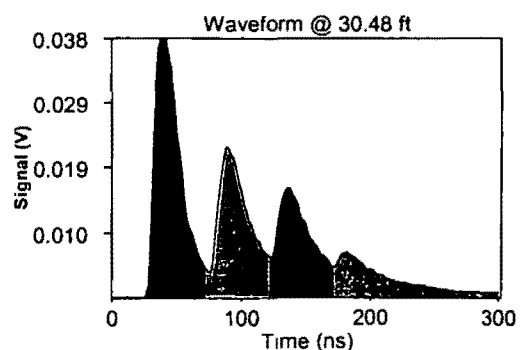
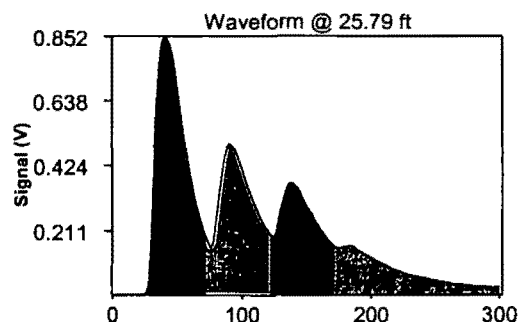
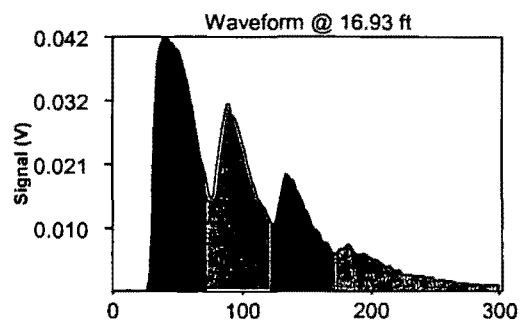
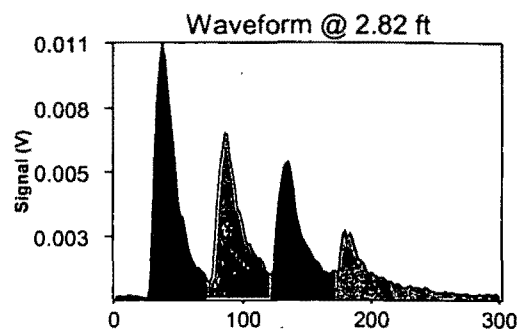
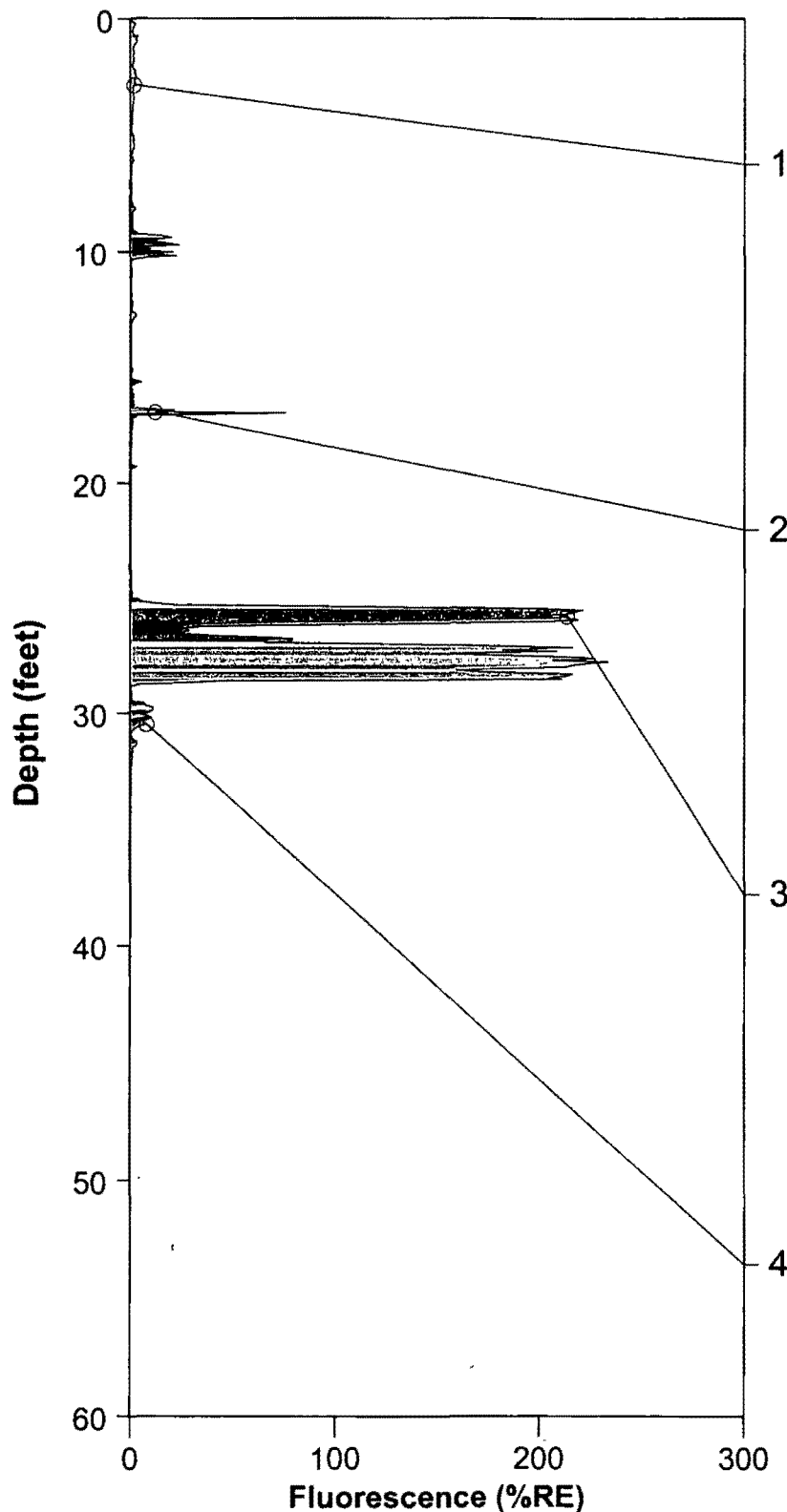
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 233.49% @ 27.79 ft

Final depth BGS: 37.24 ft

R7



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 14:44:09

ROST Unit: 1

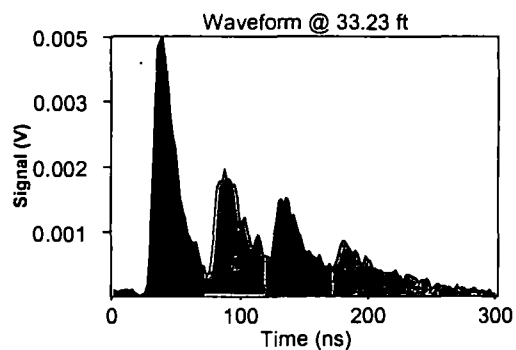
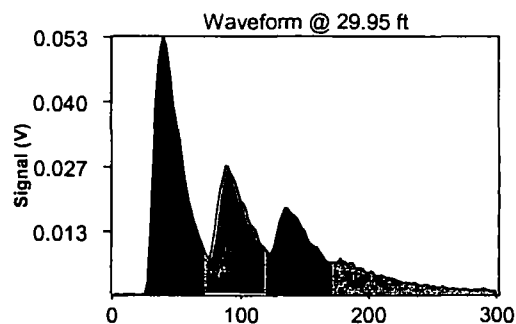
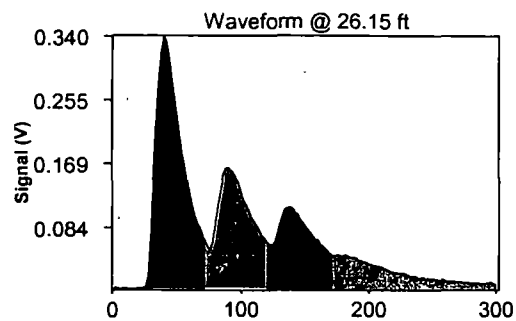
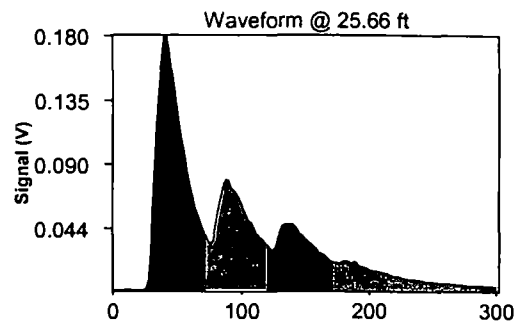
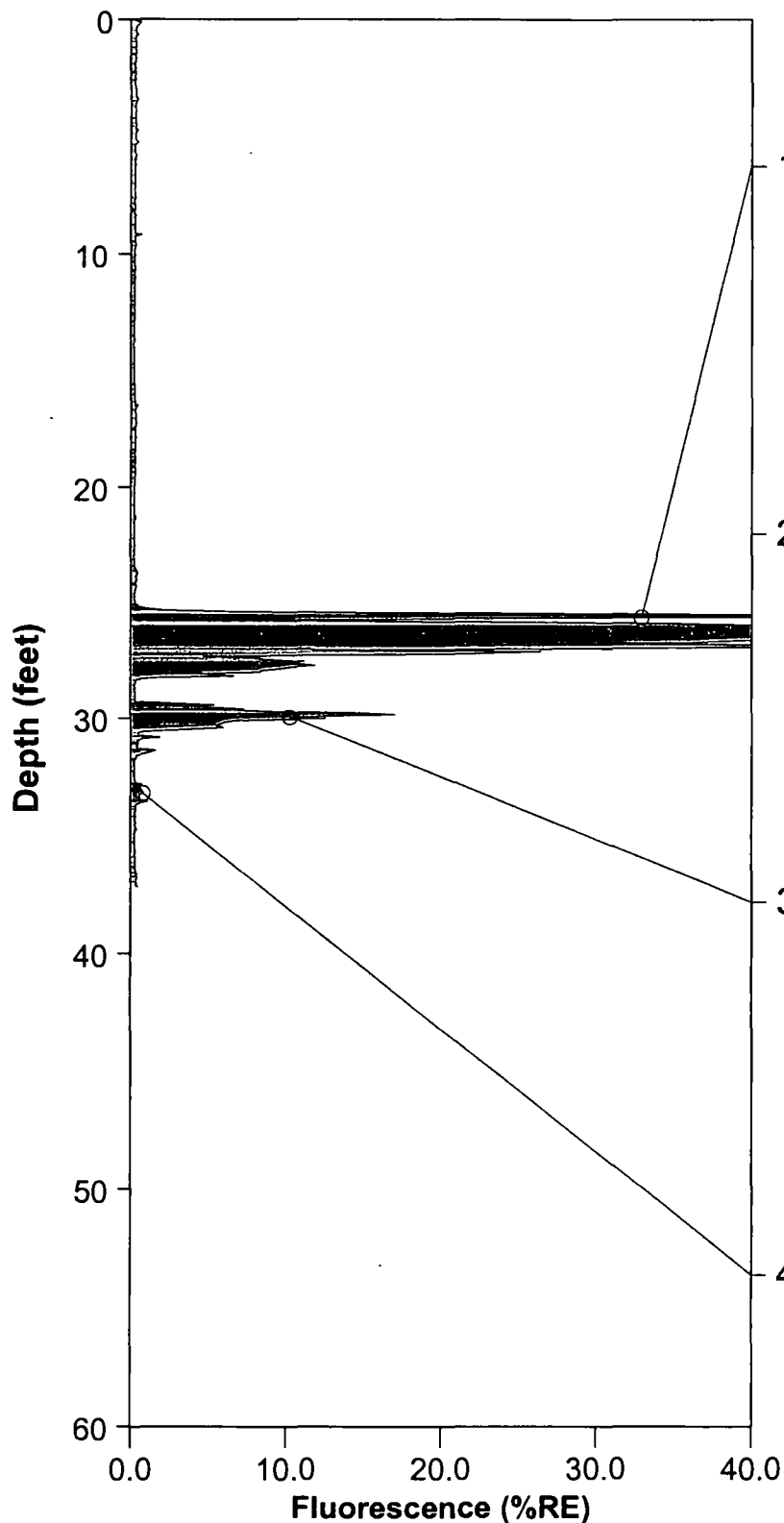
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 81.29% @ 26.08 ft

Final depth BGS: 37.20 ft

R8



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 14:44:09

ROST Unit: 1

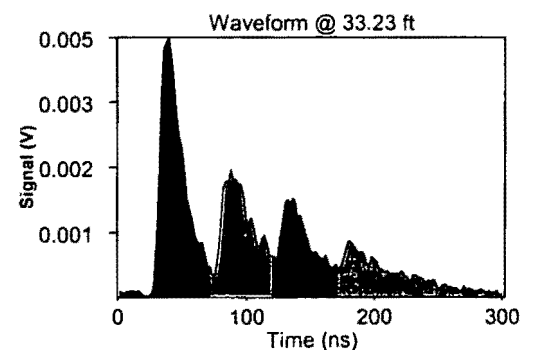
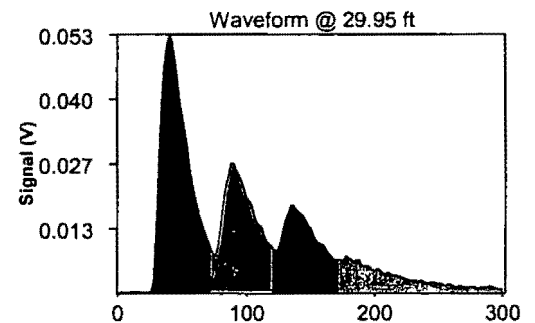
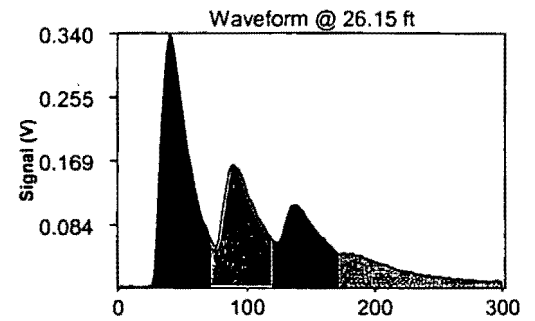
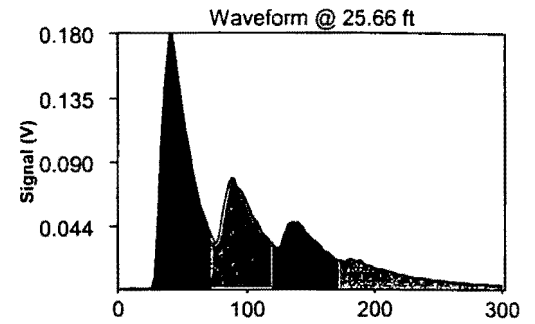
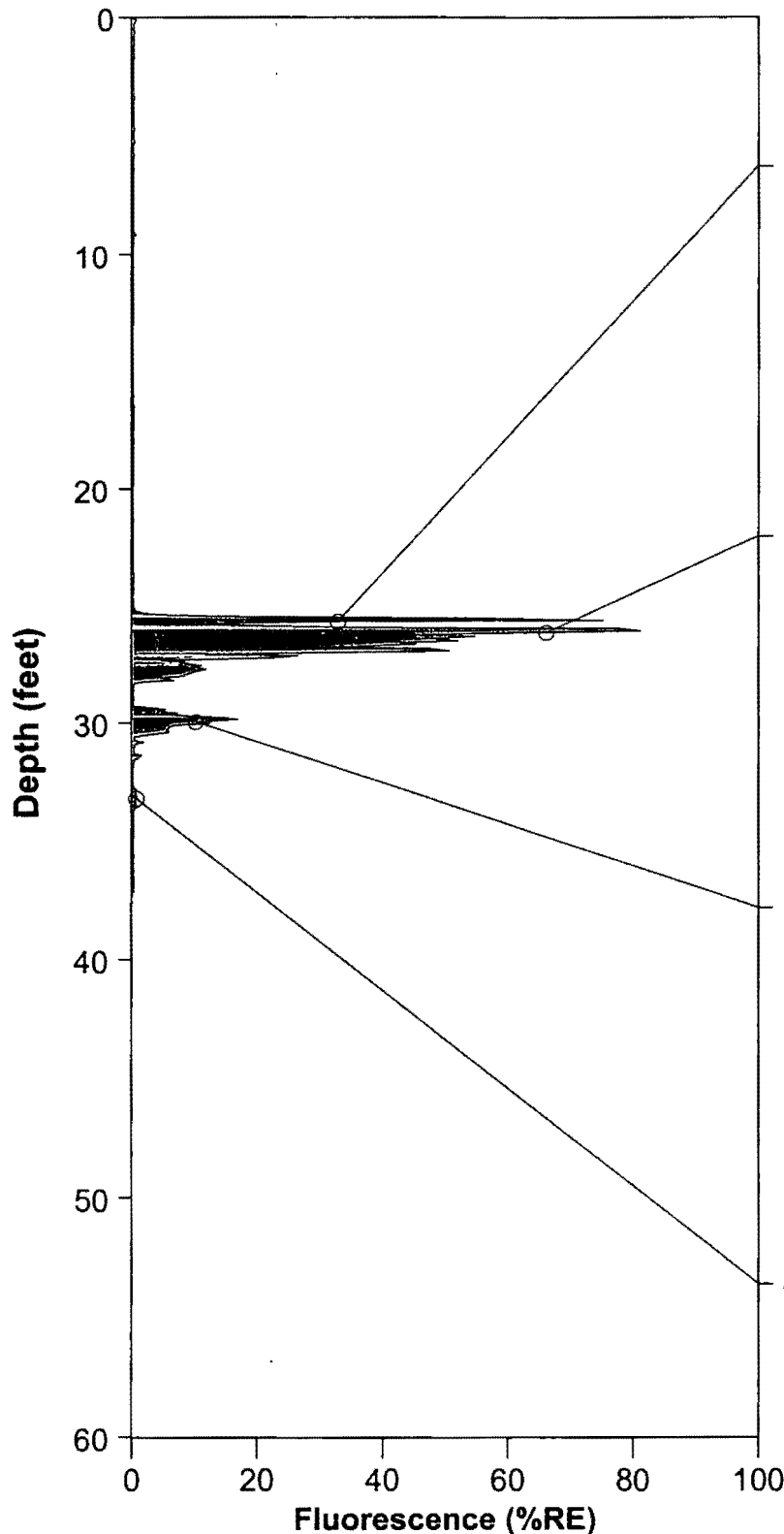
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 81.29% @ 26.08 ft

Final depth BGS: 37.20 ft

R8



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 15:19:43

ROST Unit: 1

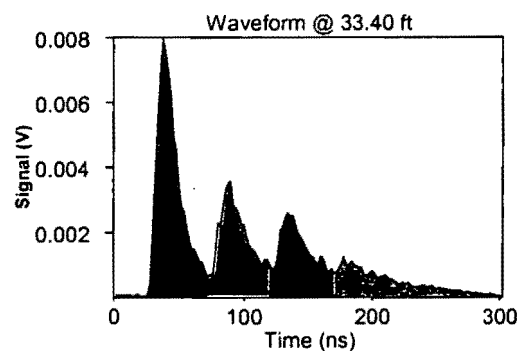
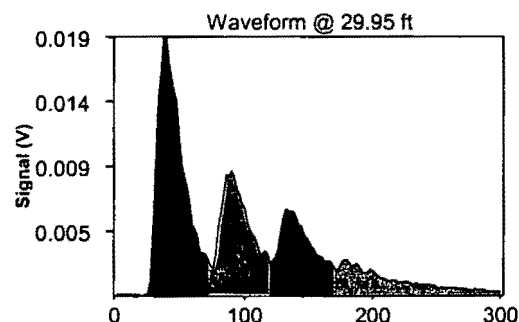
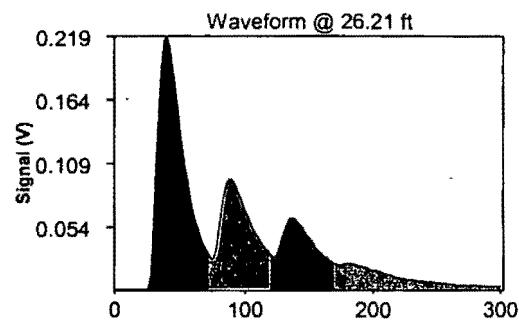
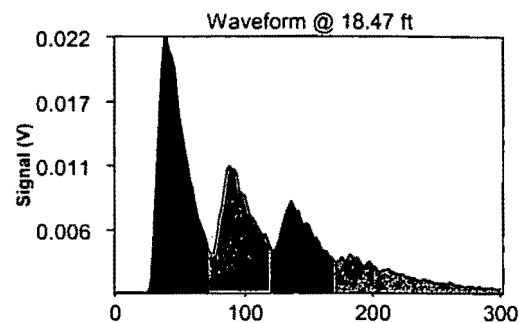
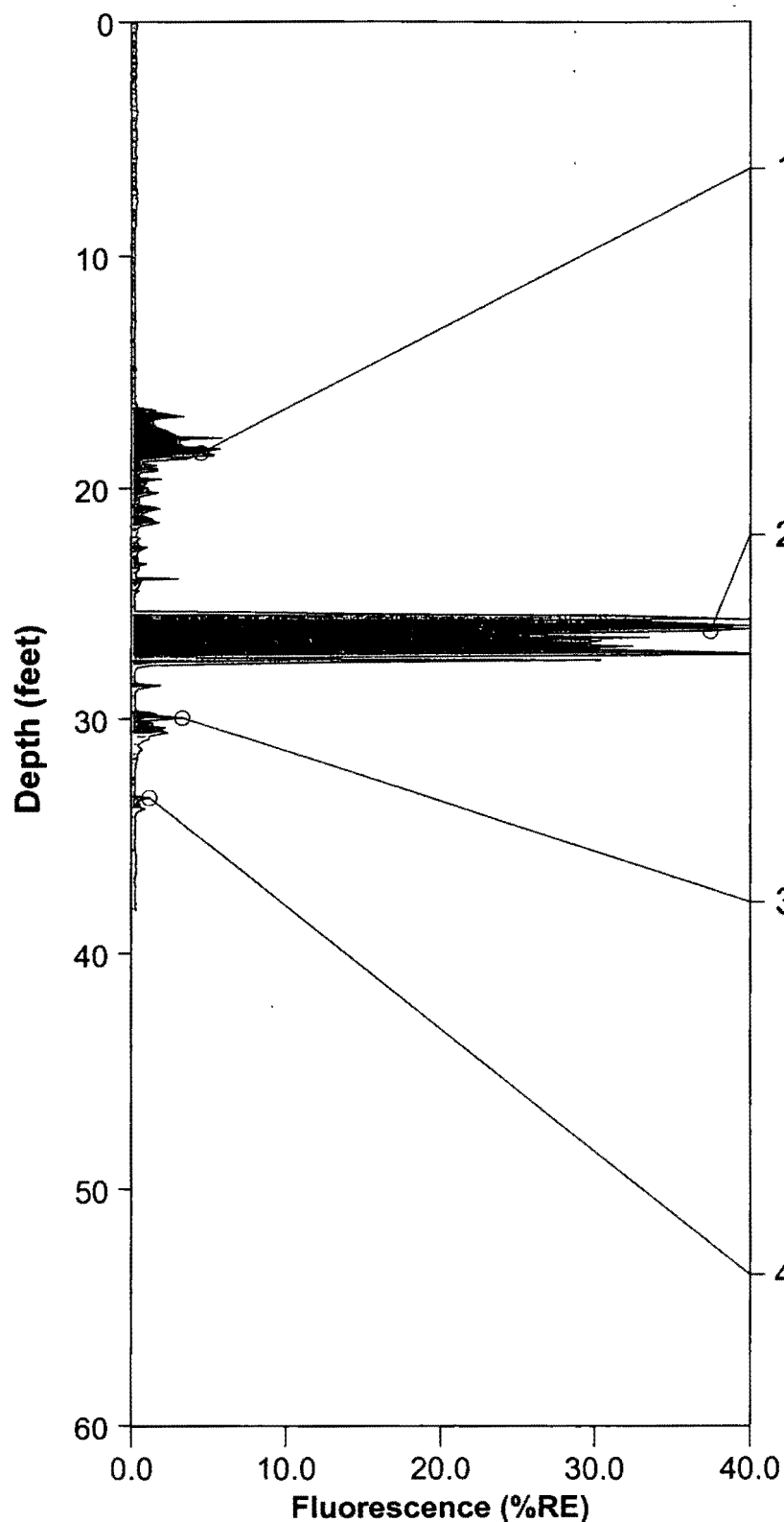
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 61.82% @ 27.23 ft

Final depth BGS: 38.19 ft

R9



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-24-2003 @ 15:19:43

ROST Unit: 1

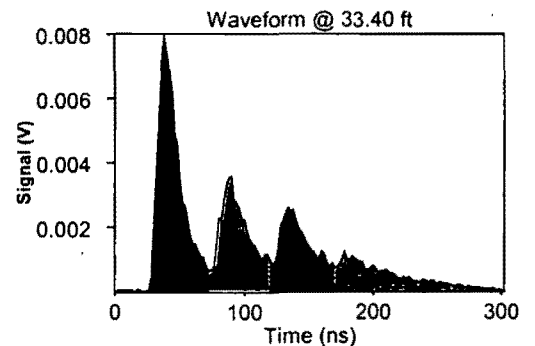
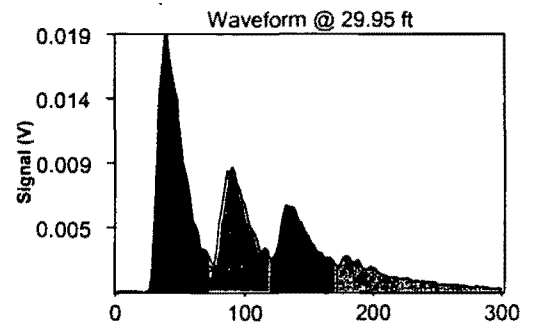
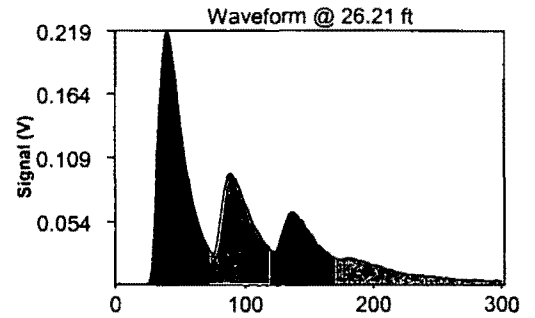
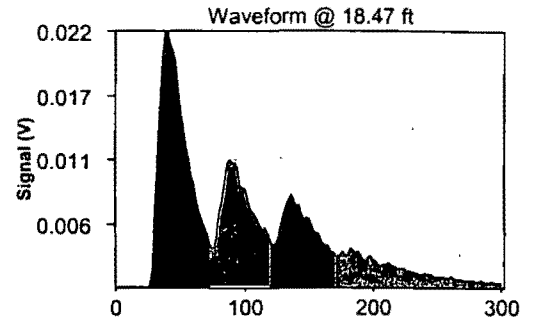
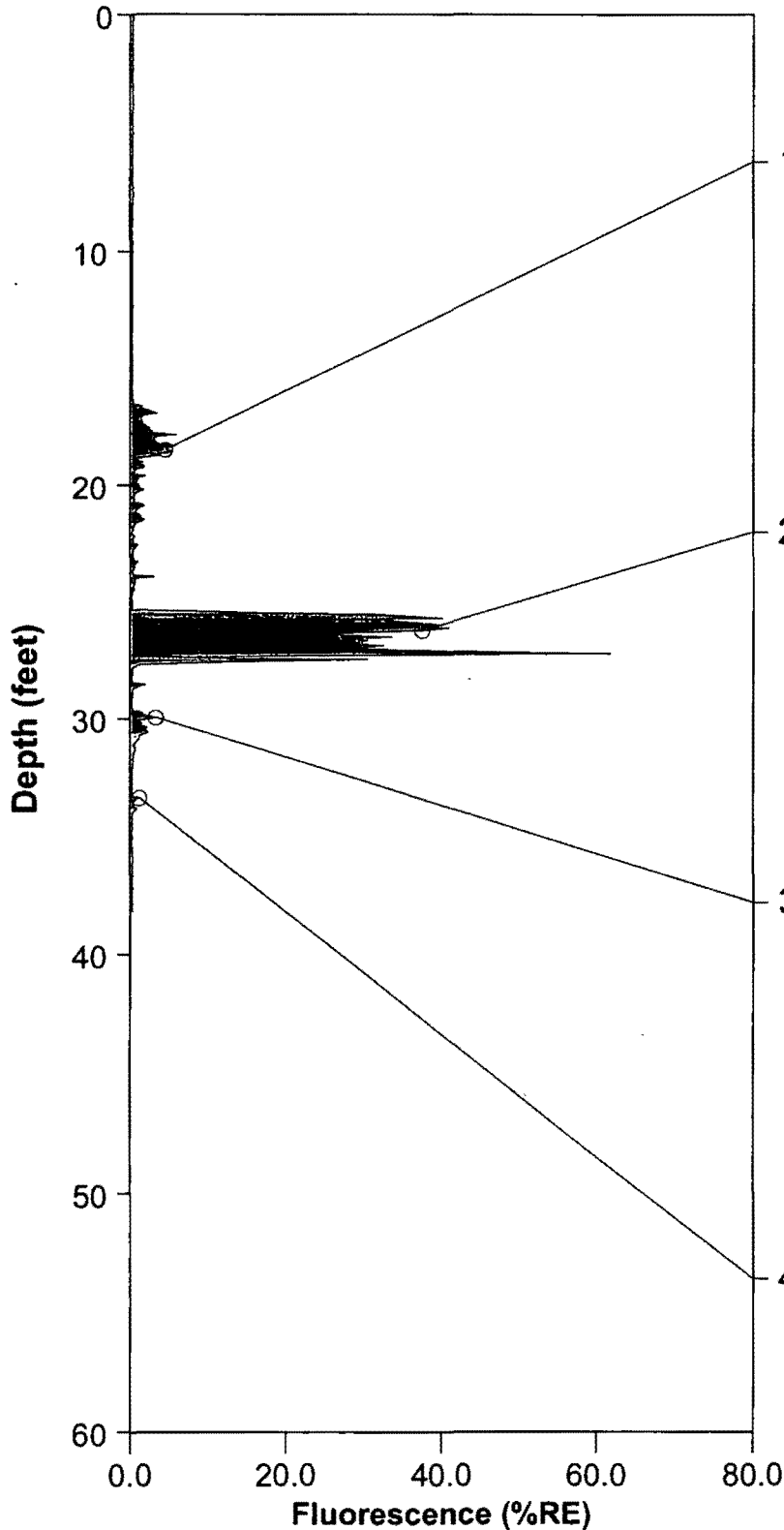
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 61.82% @ 27.23 ft

Final depth BGS: 38.19 ft

R9



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 09:47:03

ROST Unit: 1

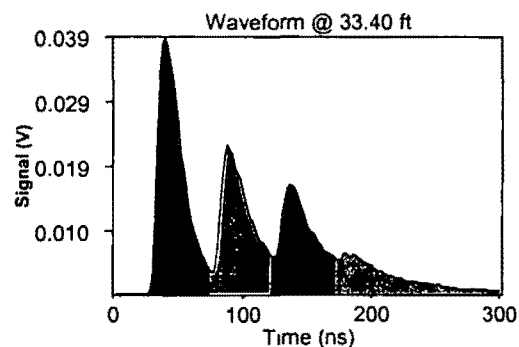
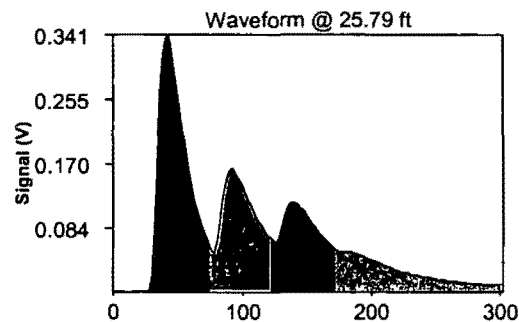
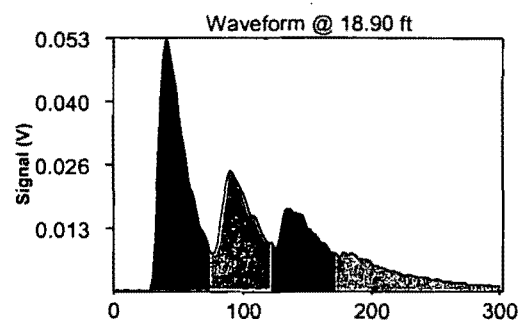
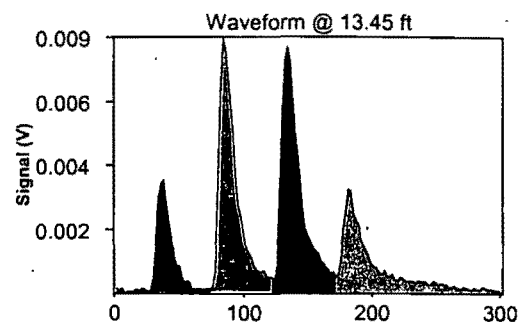
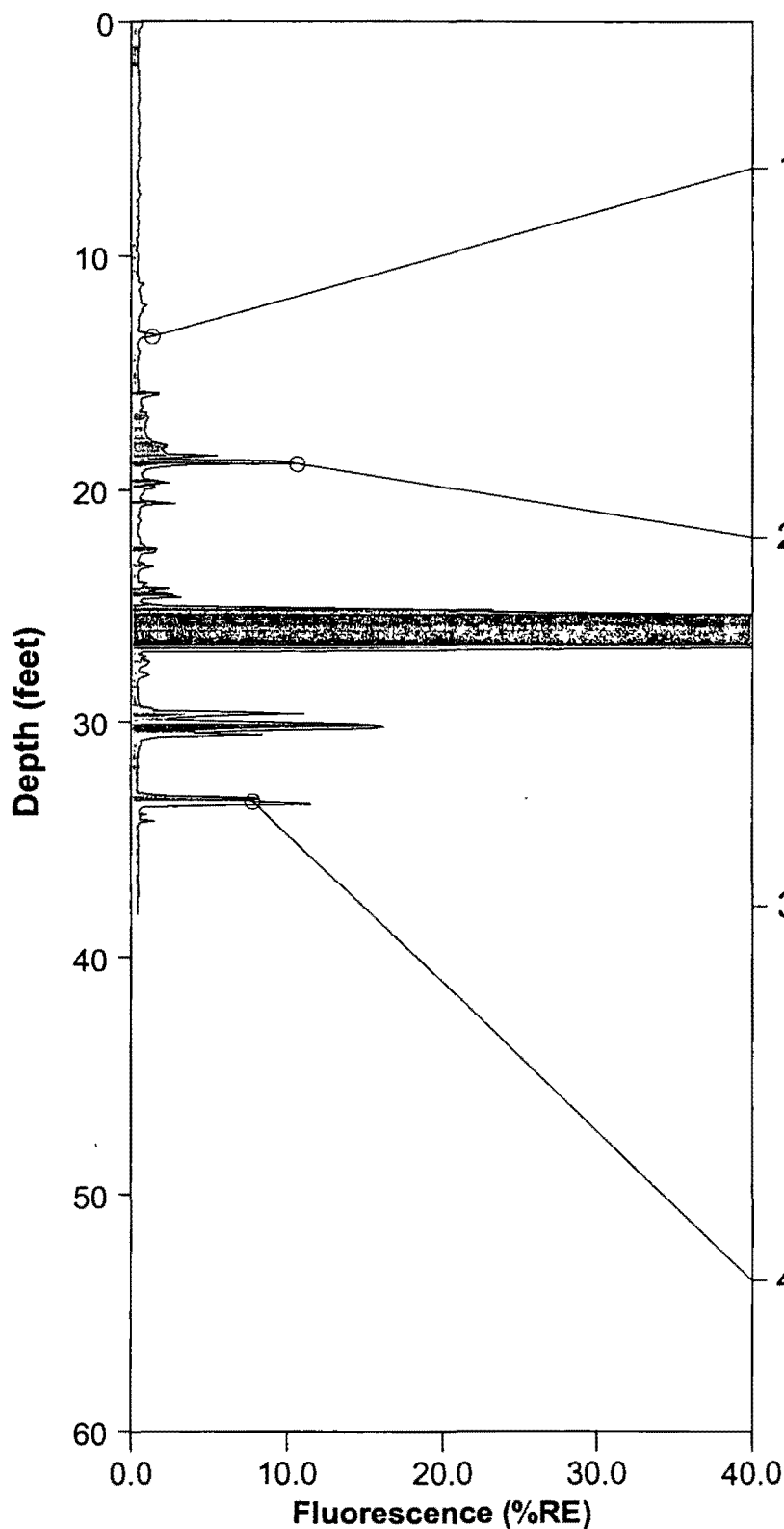
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 92.53% @ 25.56 ft

Final depth BGS: 38.19 ft

## R10





# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 09:47:03

ROST Unit: 1

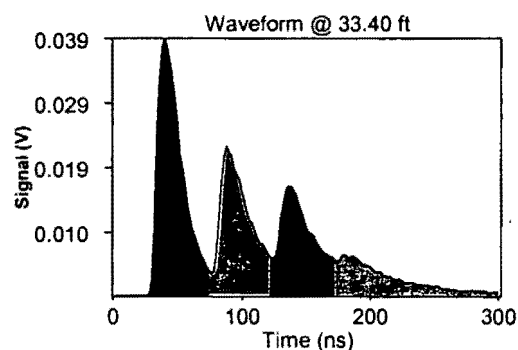
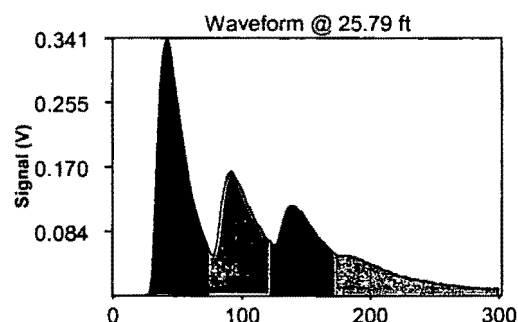
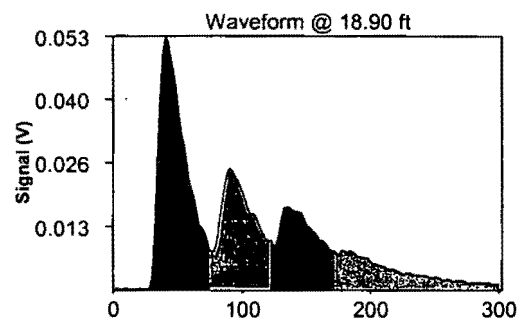
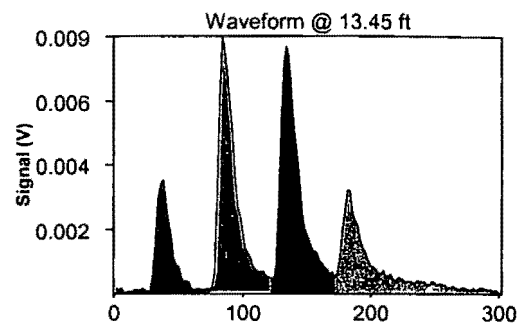
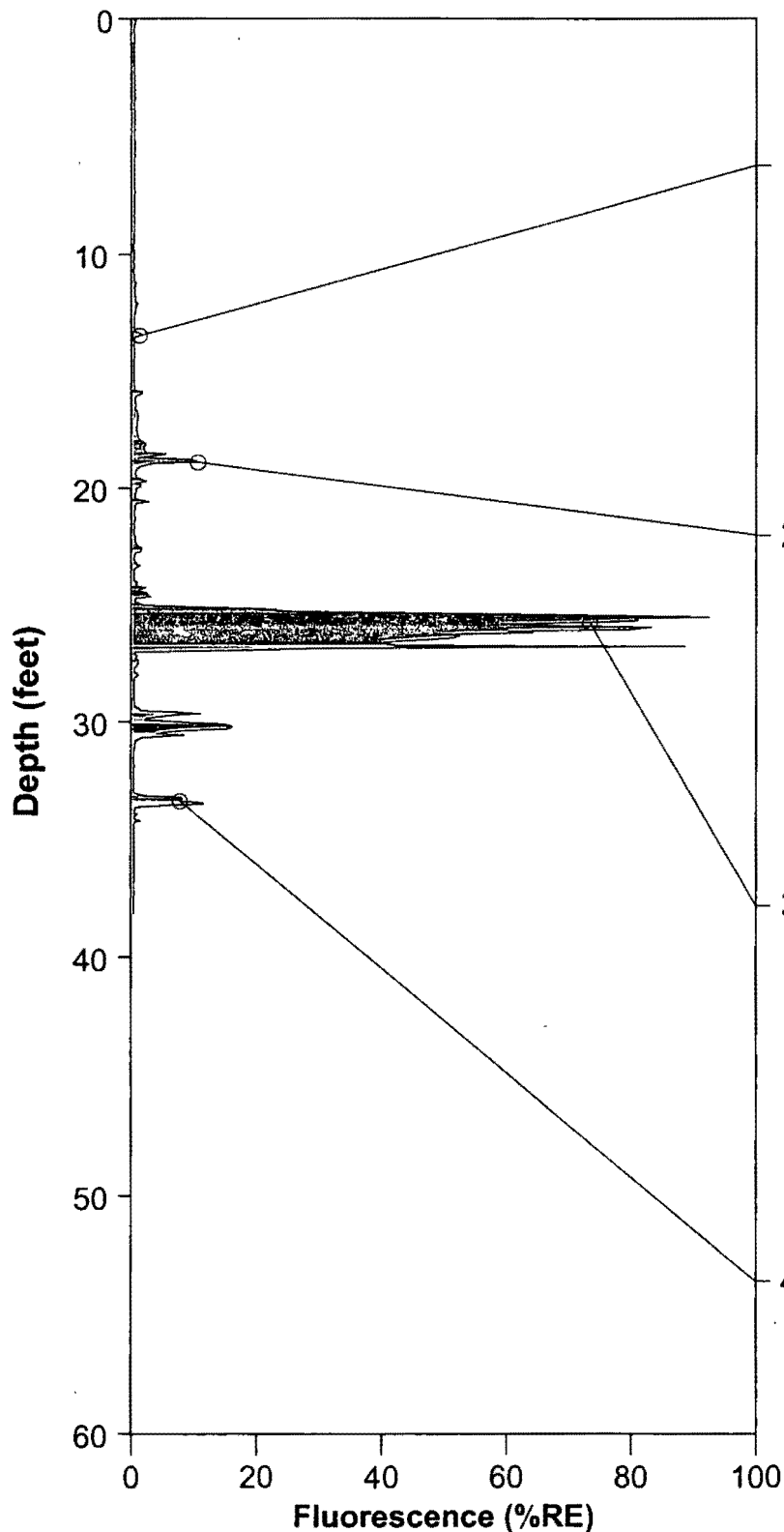
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 92.53% @ 25.56 ft

Final depth BGS: 38.19 ft

## R10



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 11:40:18

ROST Unit: 1

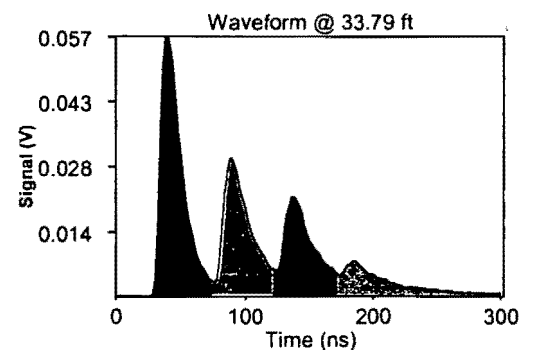
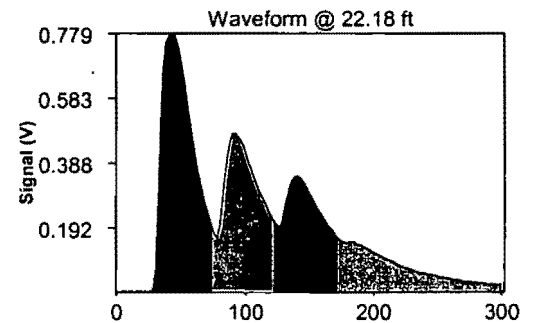
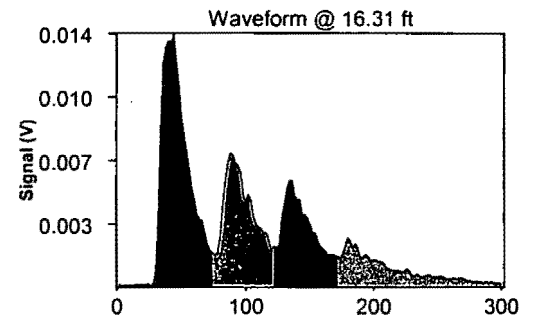
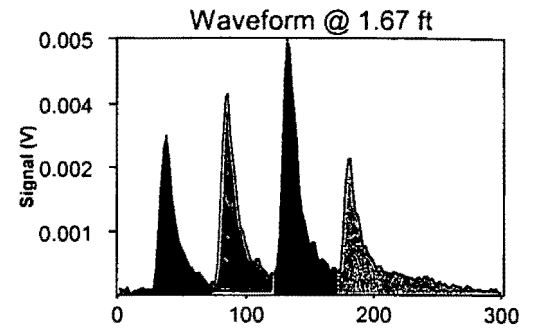
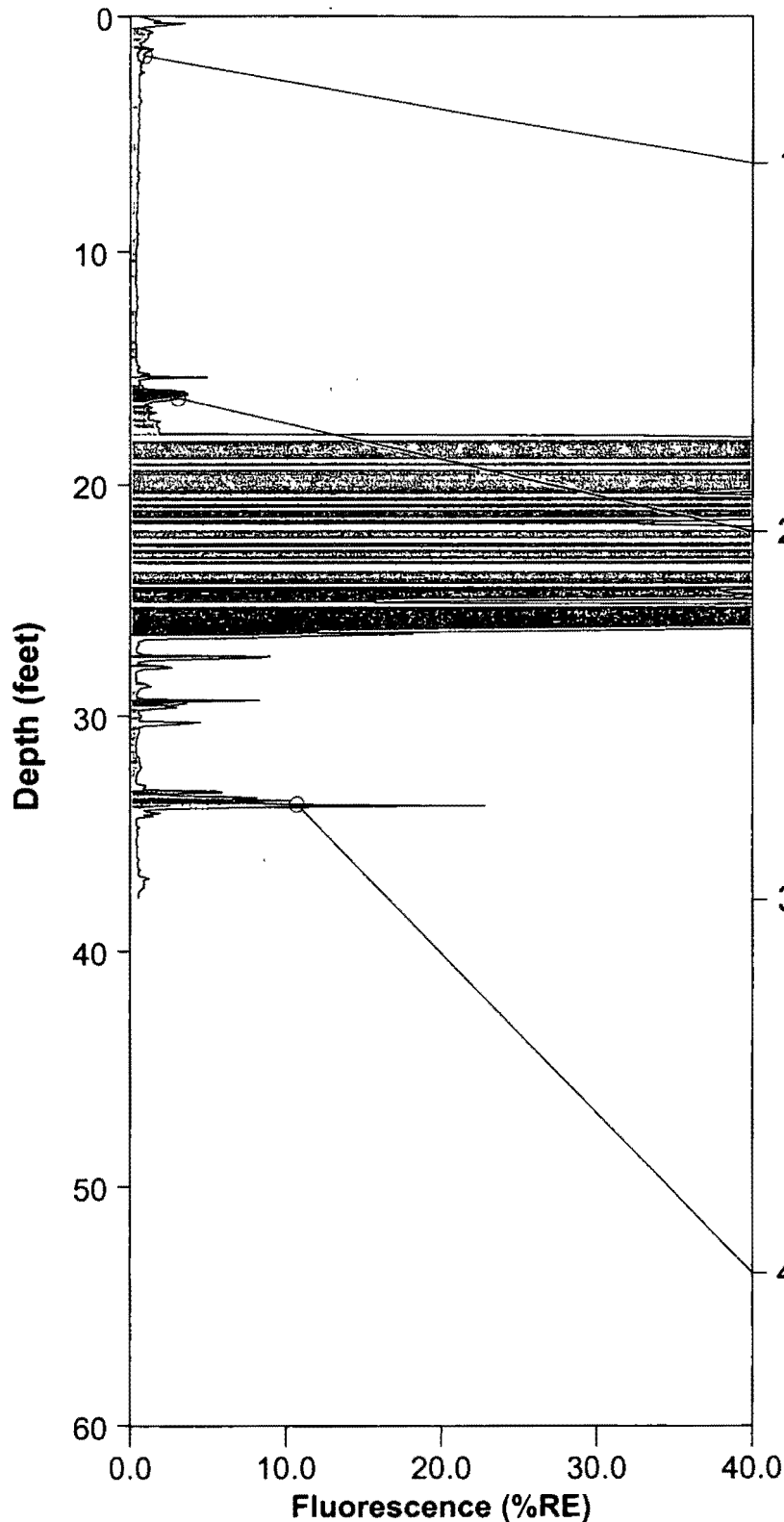
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 290.46% @ 23.06 ft

Final depth BGS: 37.76 ft

R11



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 15:27:16

ROST Unit: 1

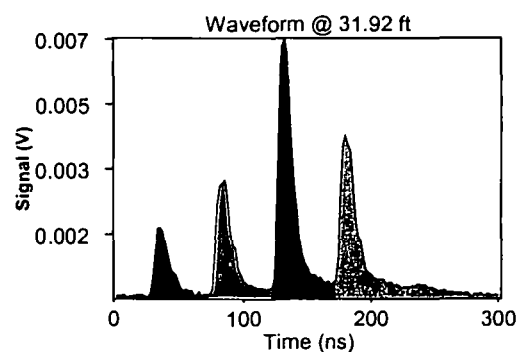
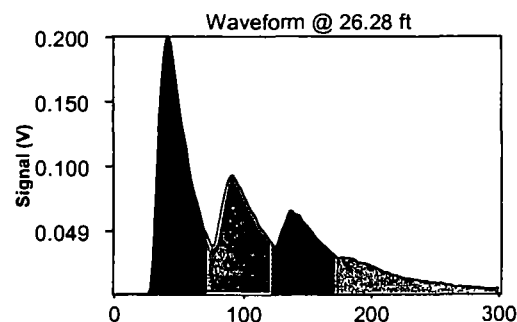
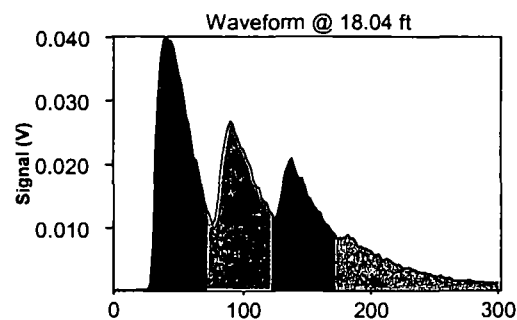
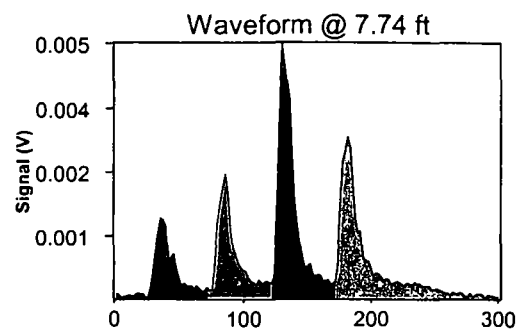
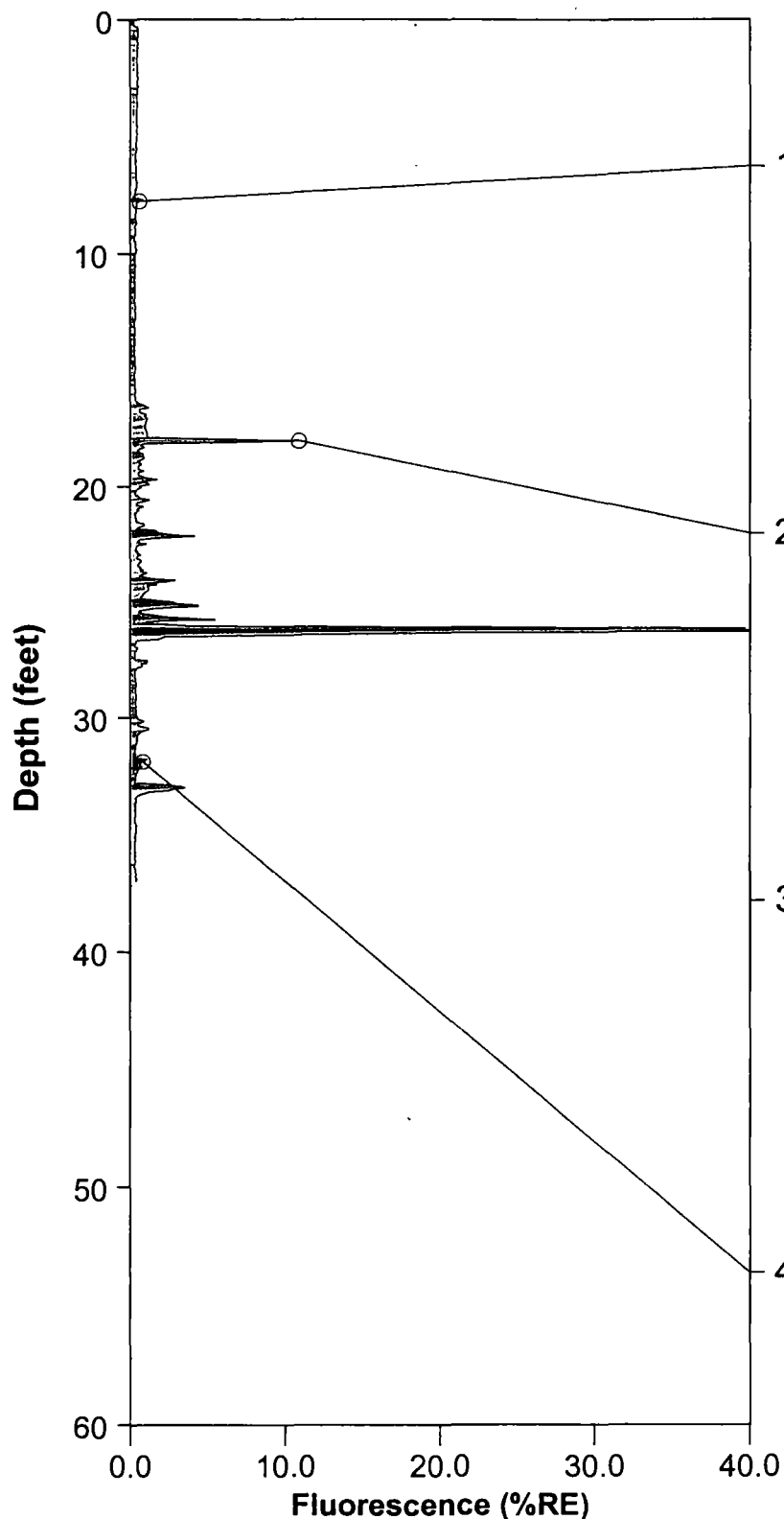
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 40.52% @ 26.25 ft

Final depth BGS: 37.01 ft

R12



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 15:27:16

ROST Unit: 1

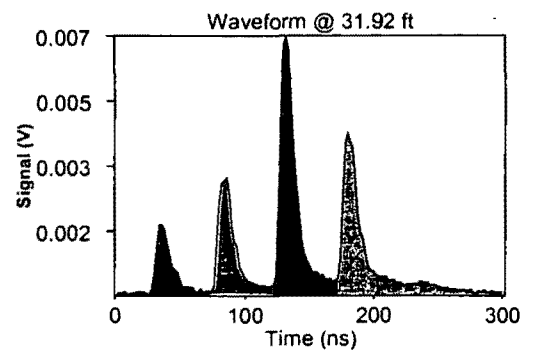
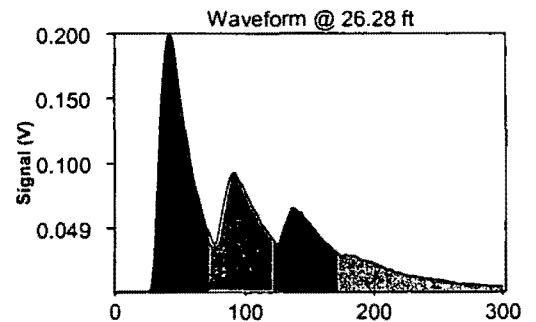
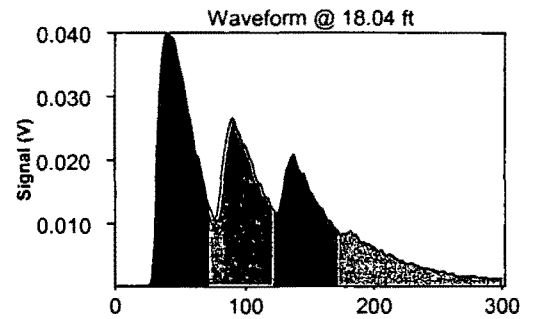
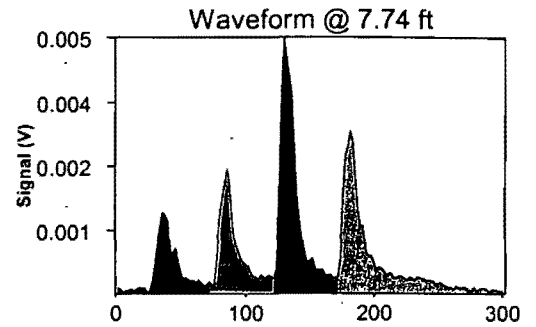
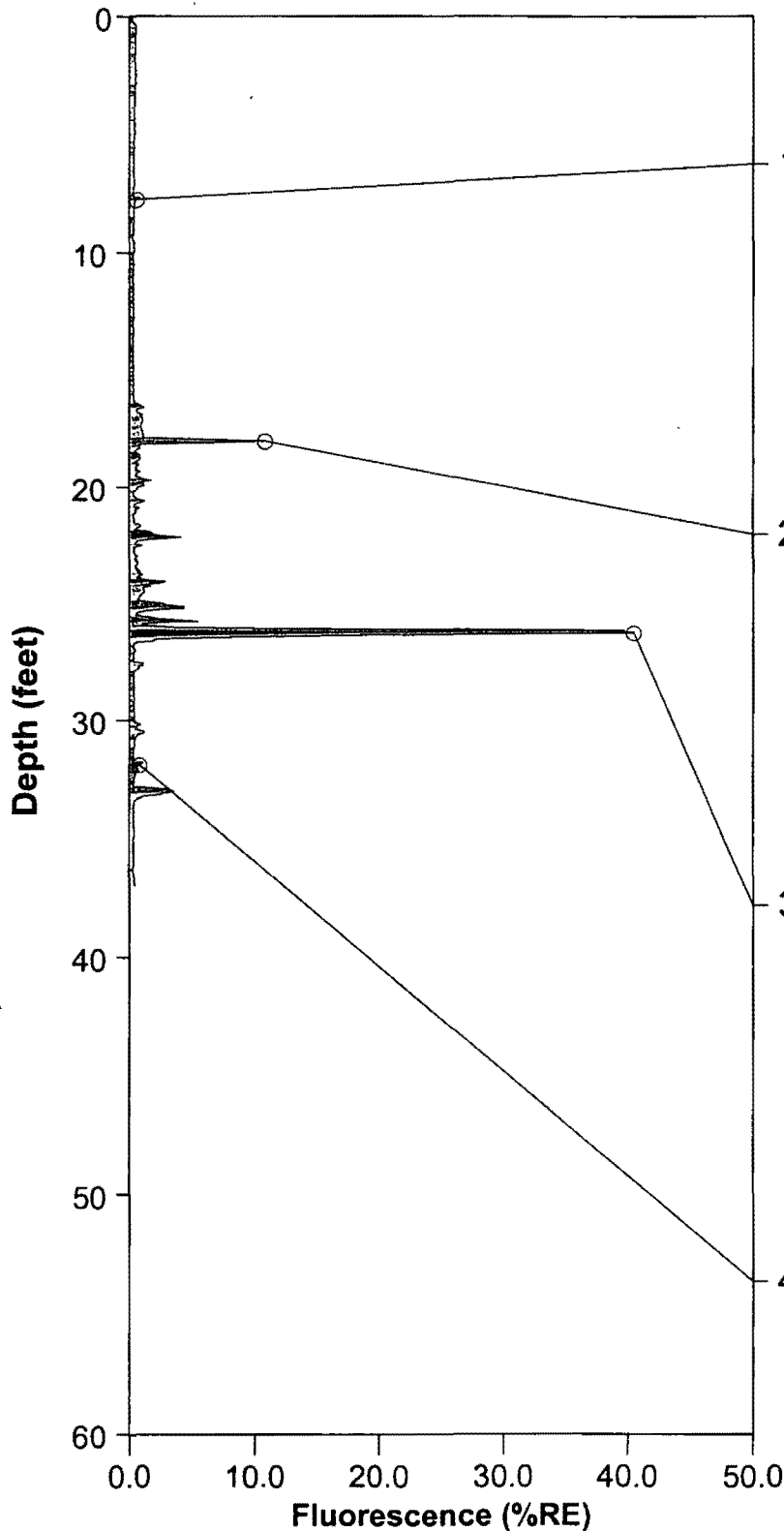
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 40.52% @ 26.25 ft

Final depth BGS: 37.01 ft

R12



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 14:50:36

ROST Unit: 1

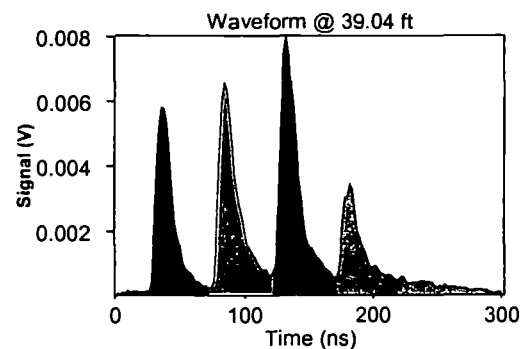
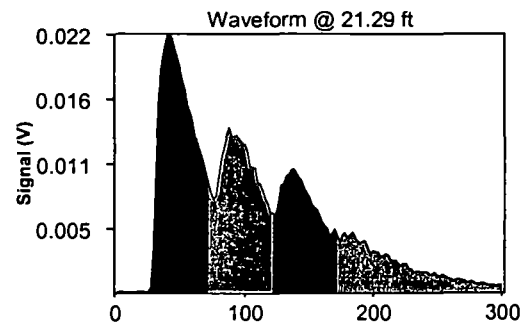
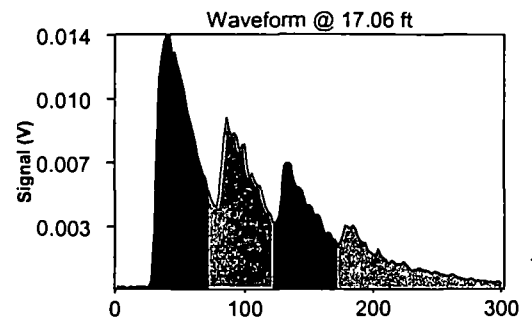
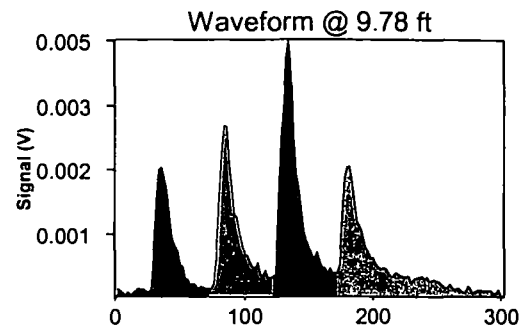
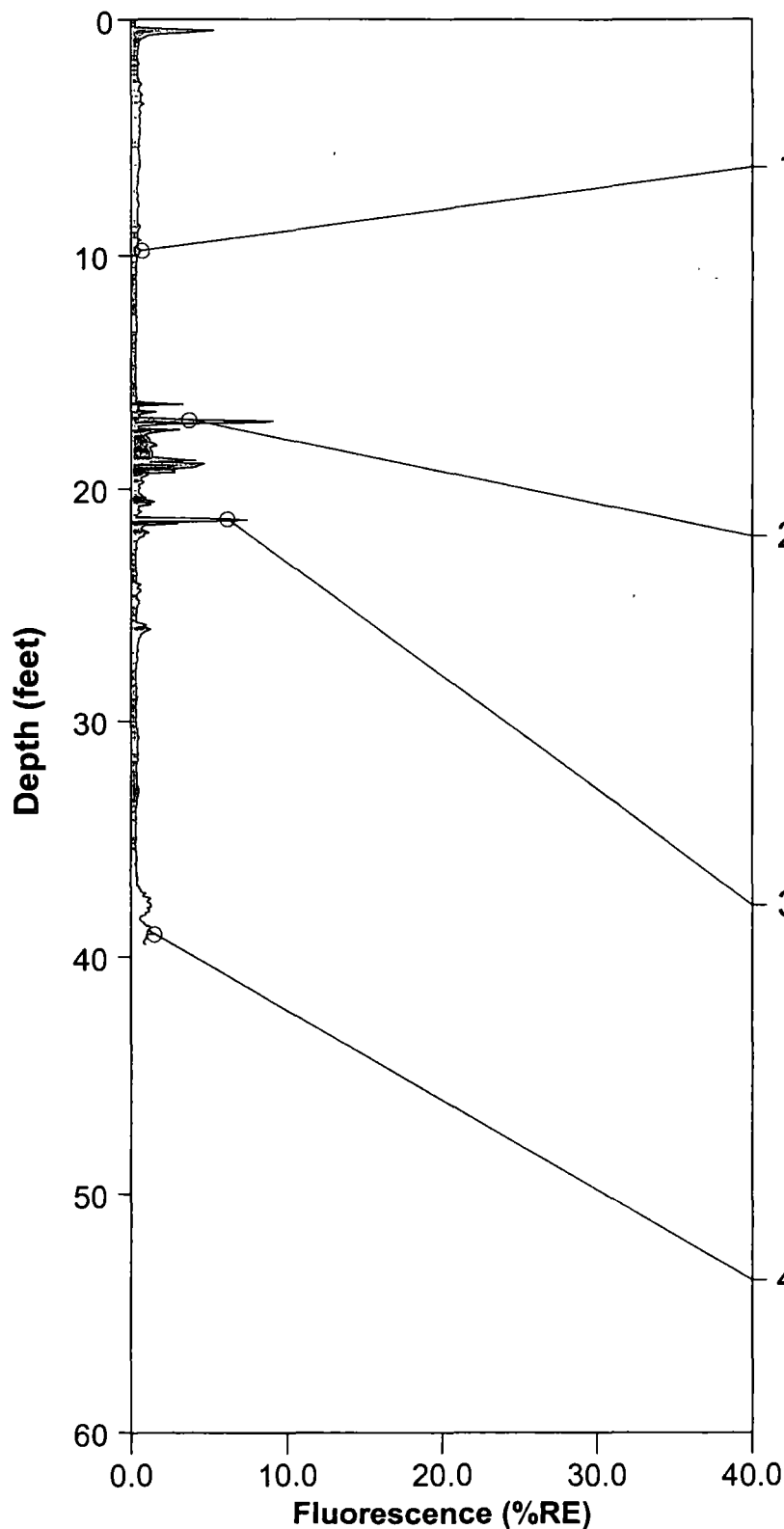
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 9.11% @ 17.13 ft

Final depth BGS: 39.50 ft

## R13



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 12:14:43

ROST Unit: 1

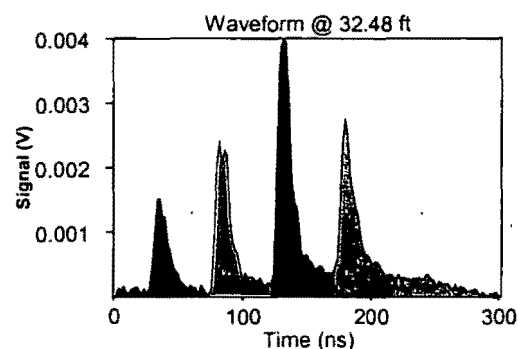
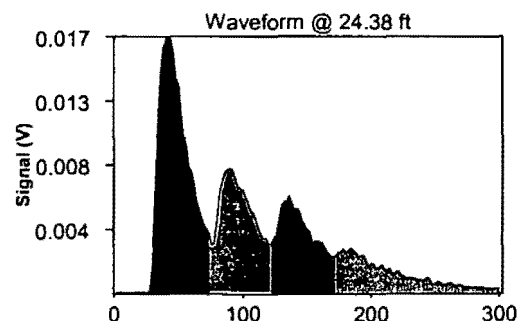
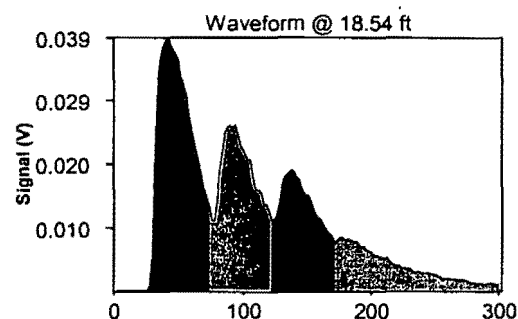
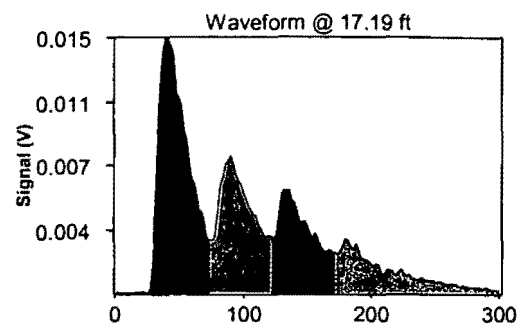
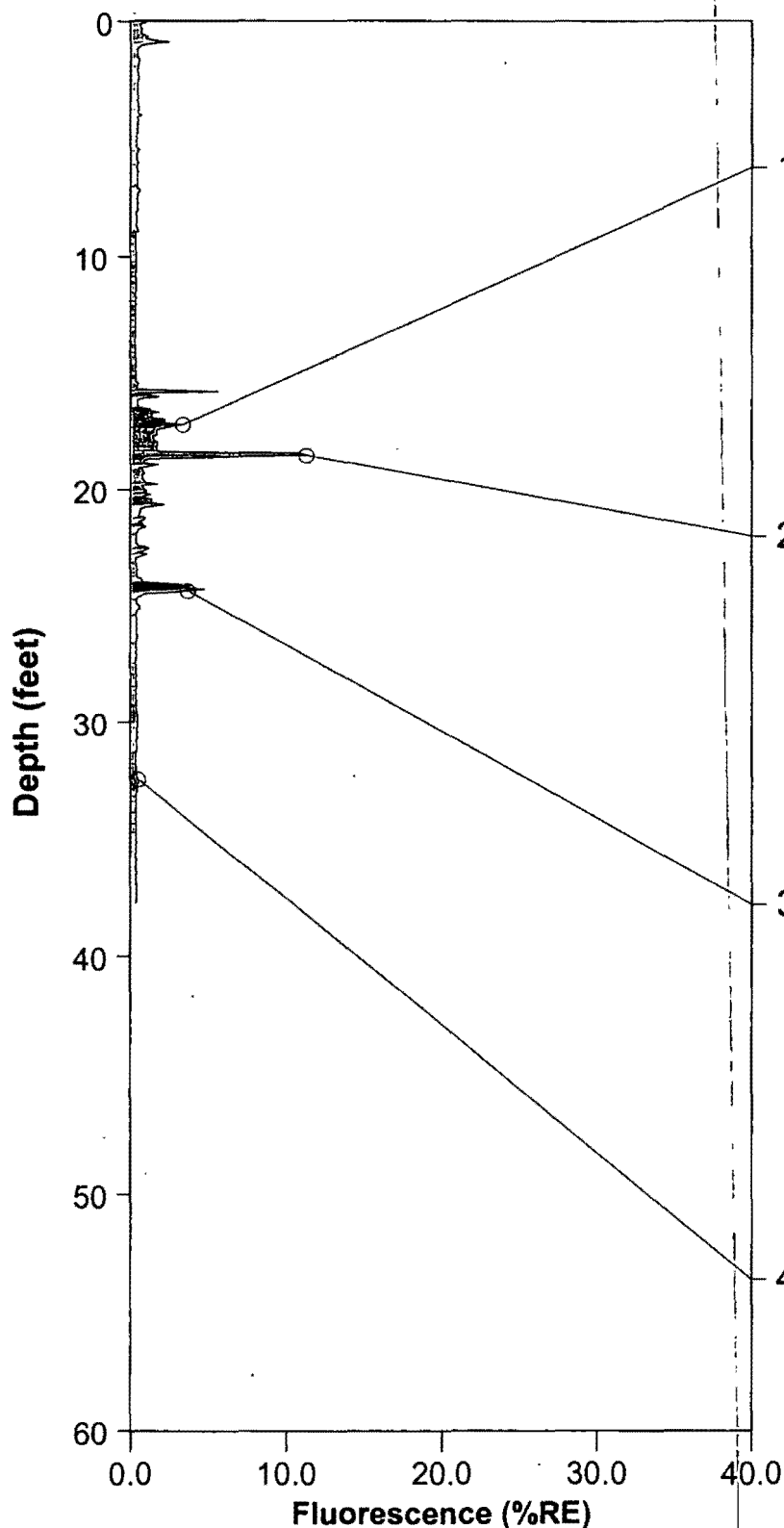
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 11.29% @ 18.54 ft

Final depth BGS: 37.76 ft

R14



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 10:21:23

ROST Unit: 1

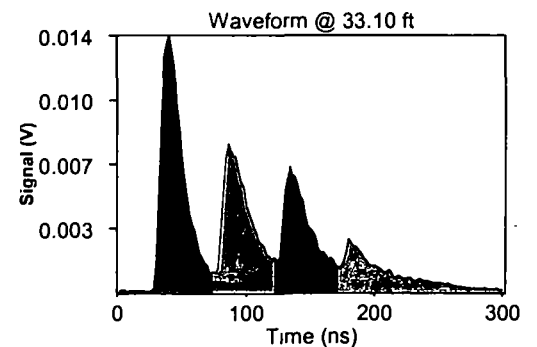
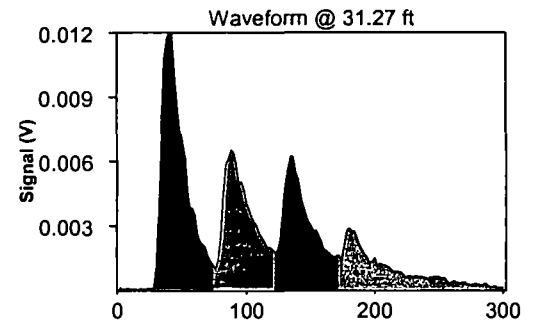
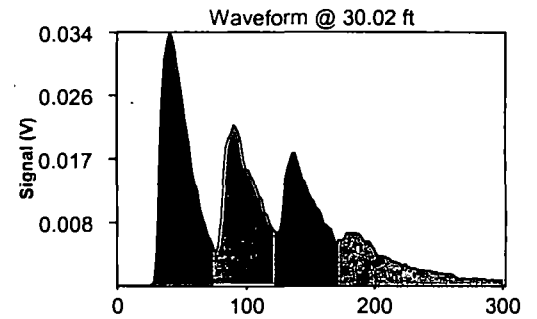
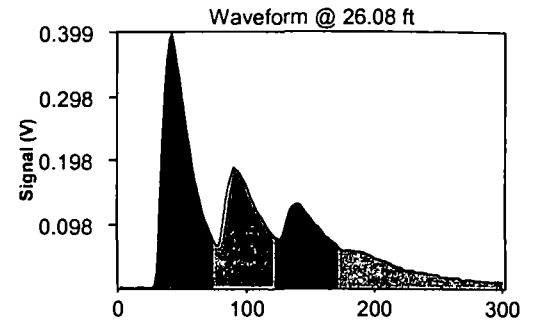
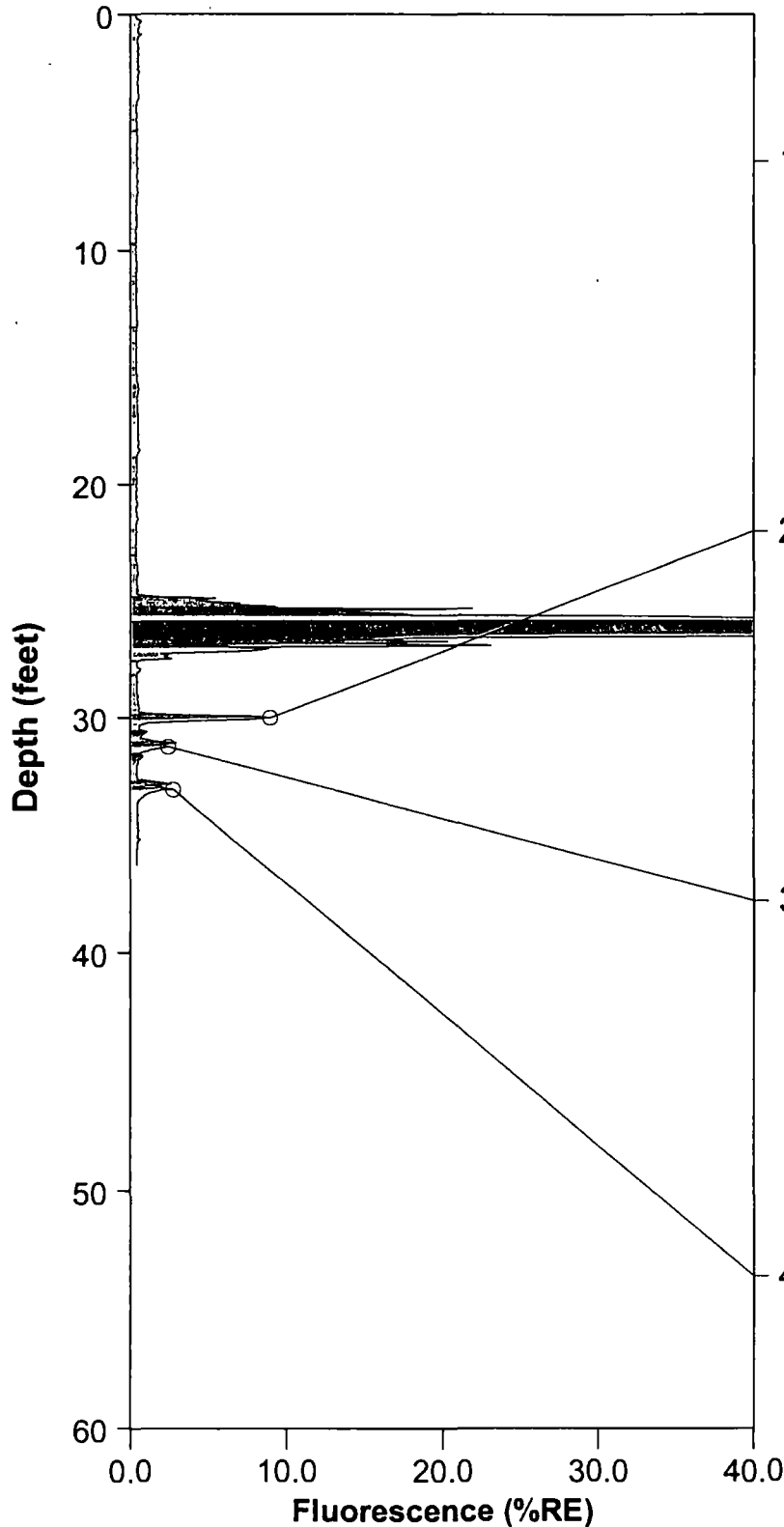
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 103.75% @ 25.85 ft

Final depth BGS: 36.29 ft

R15



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 10:21:23

ROST Unit: 1

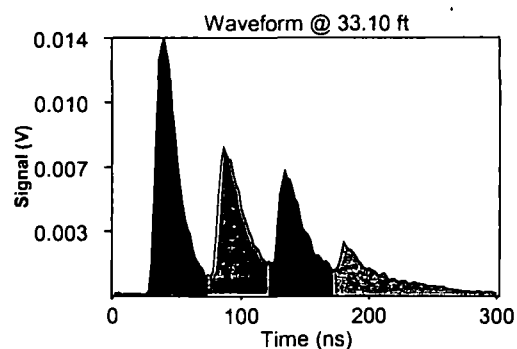
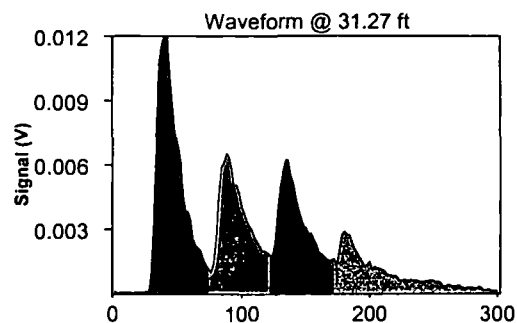
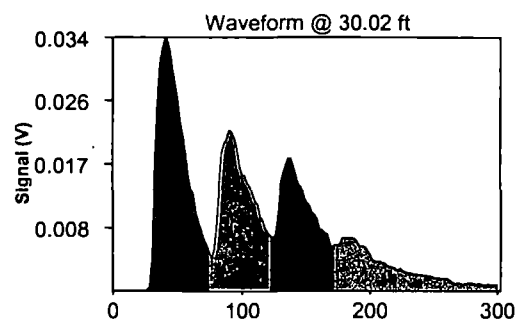
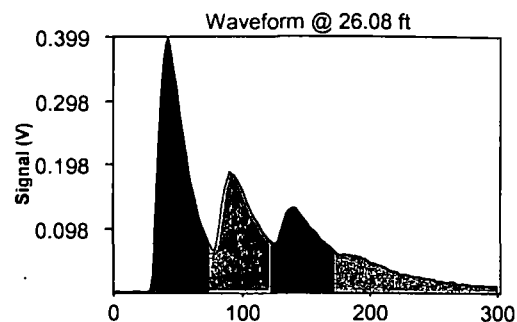
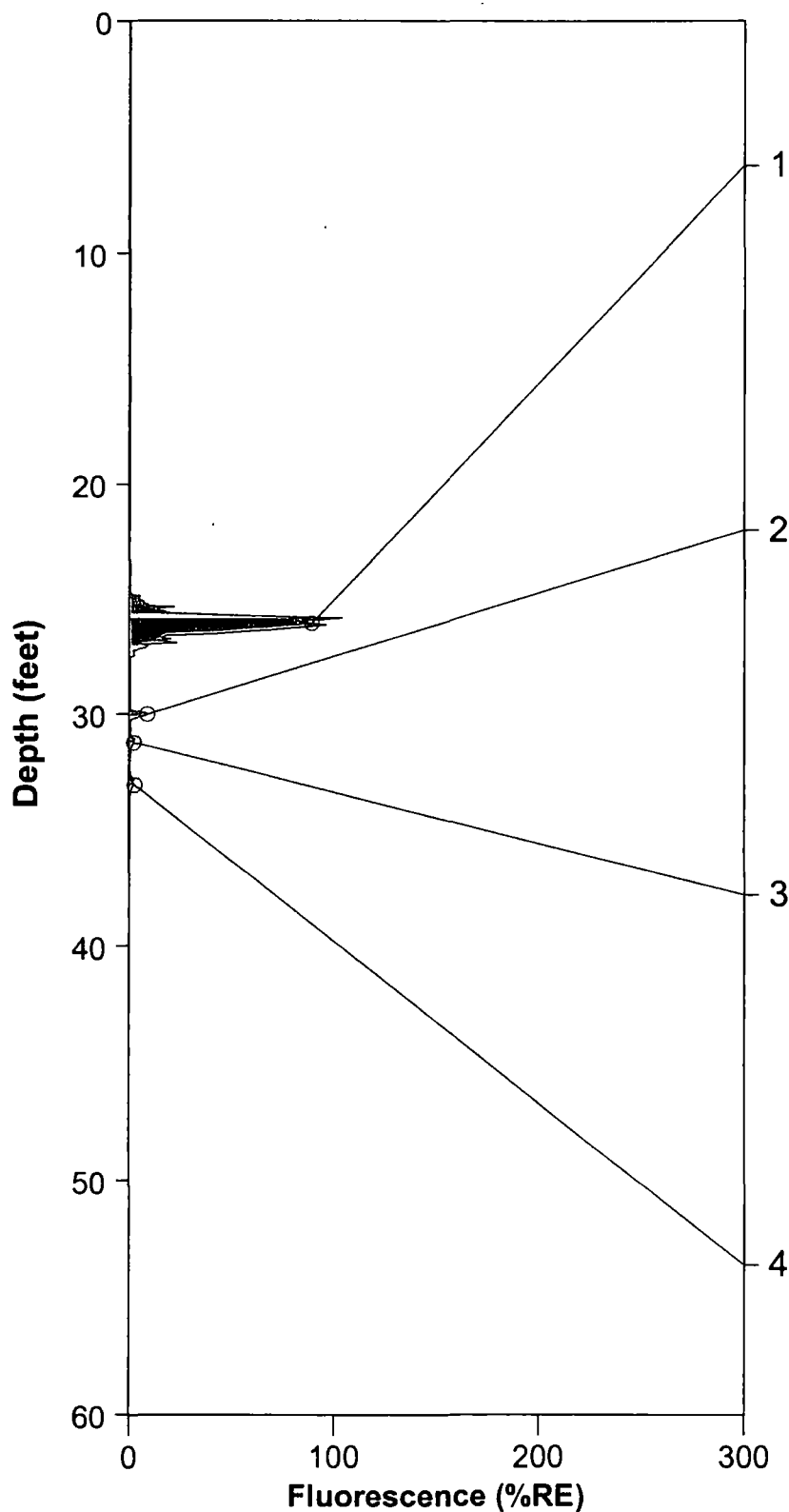
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 103.75% @ 25.85 ft

Final depth BGS: 36.29 ft

R15





# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 14:10:56

ROST Unit: 1

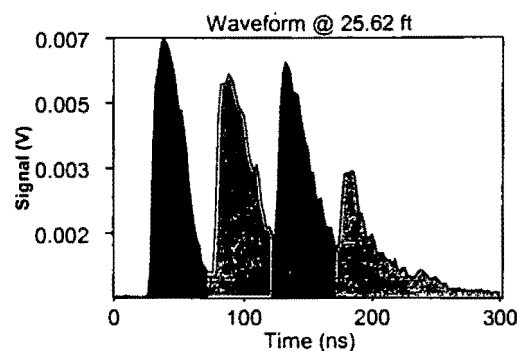
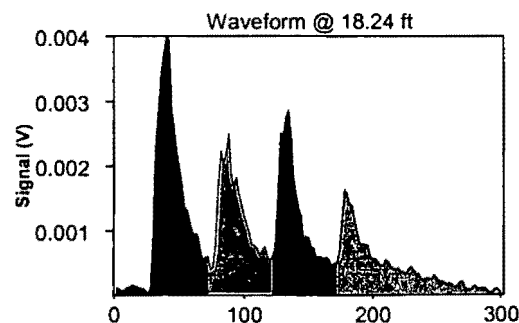
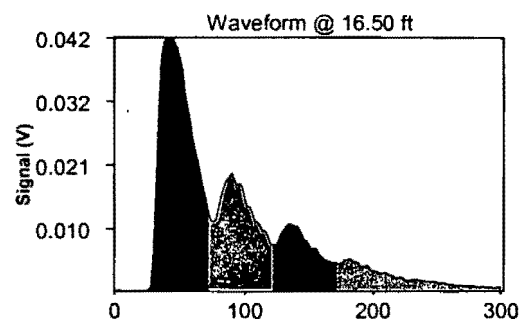
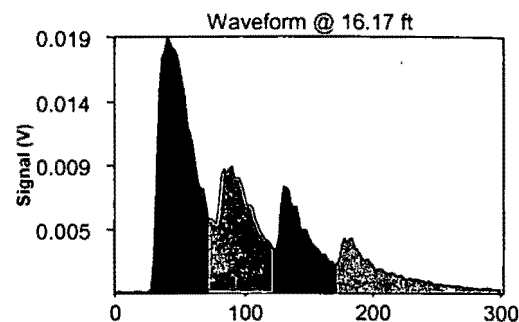
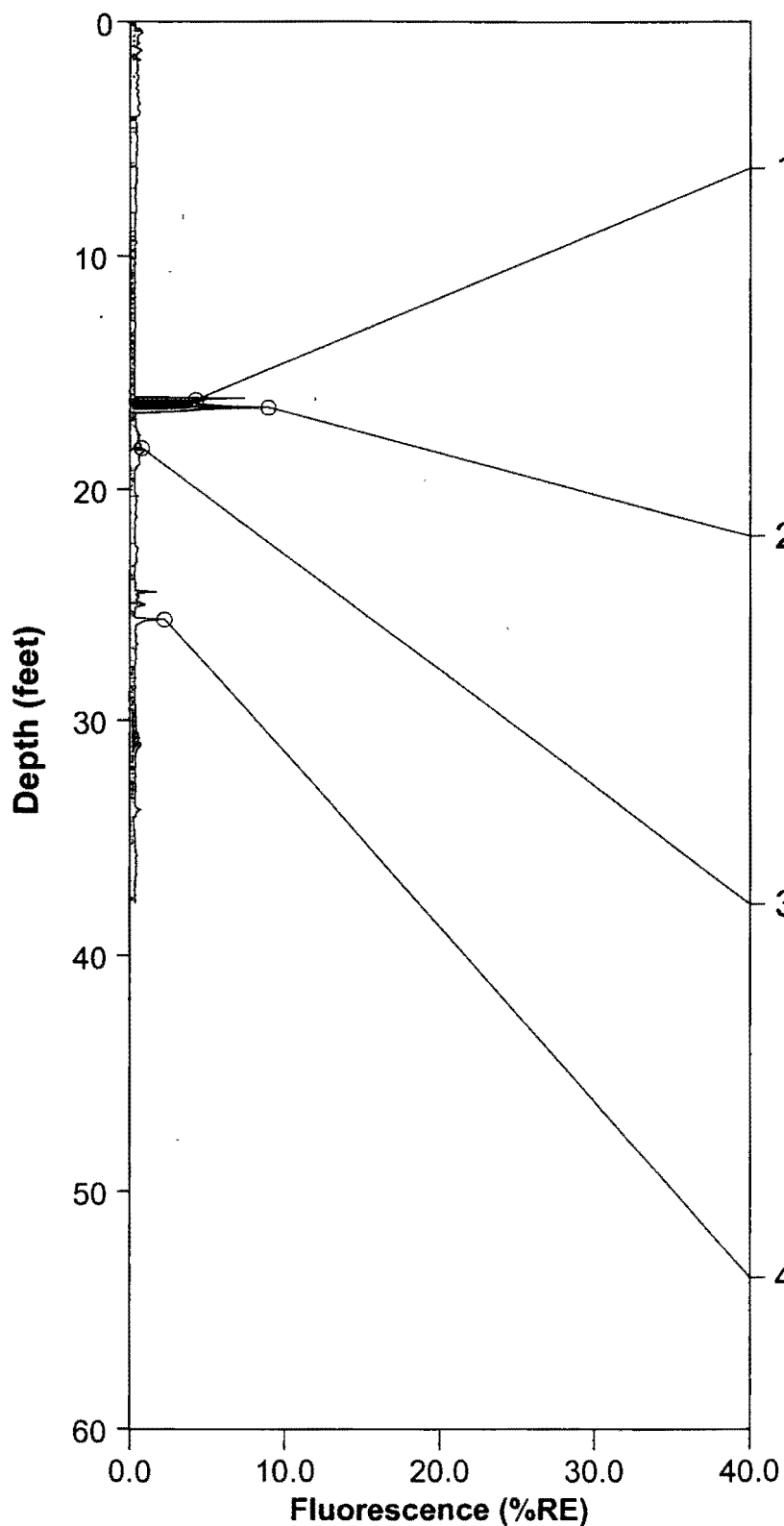
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 8.93% @ 16.50 ft

Final depth BGS: 37.80 ft

R16



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 13:28:56

ROST Unit: 1

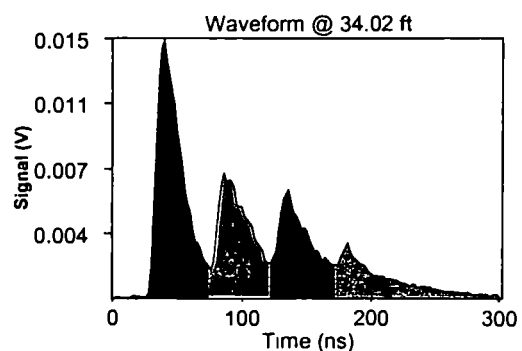
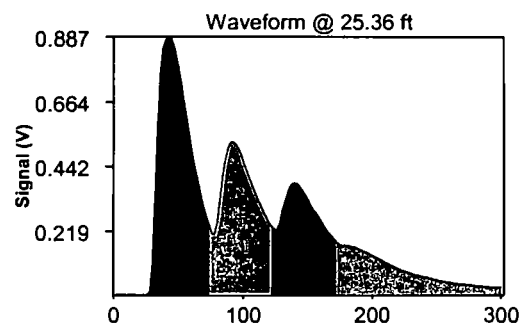
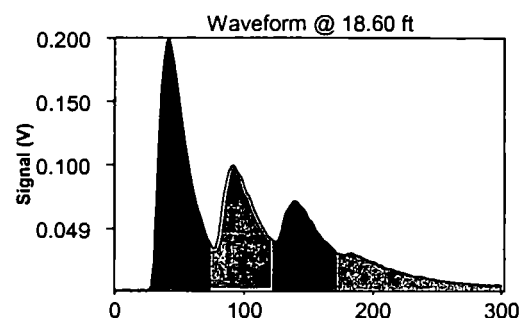
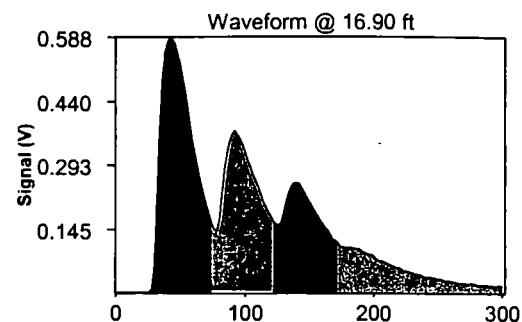
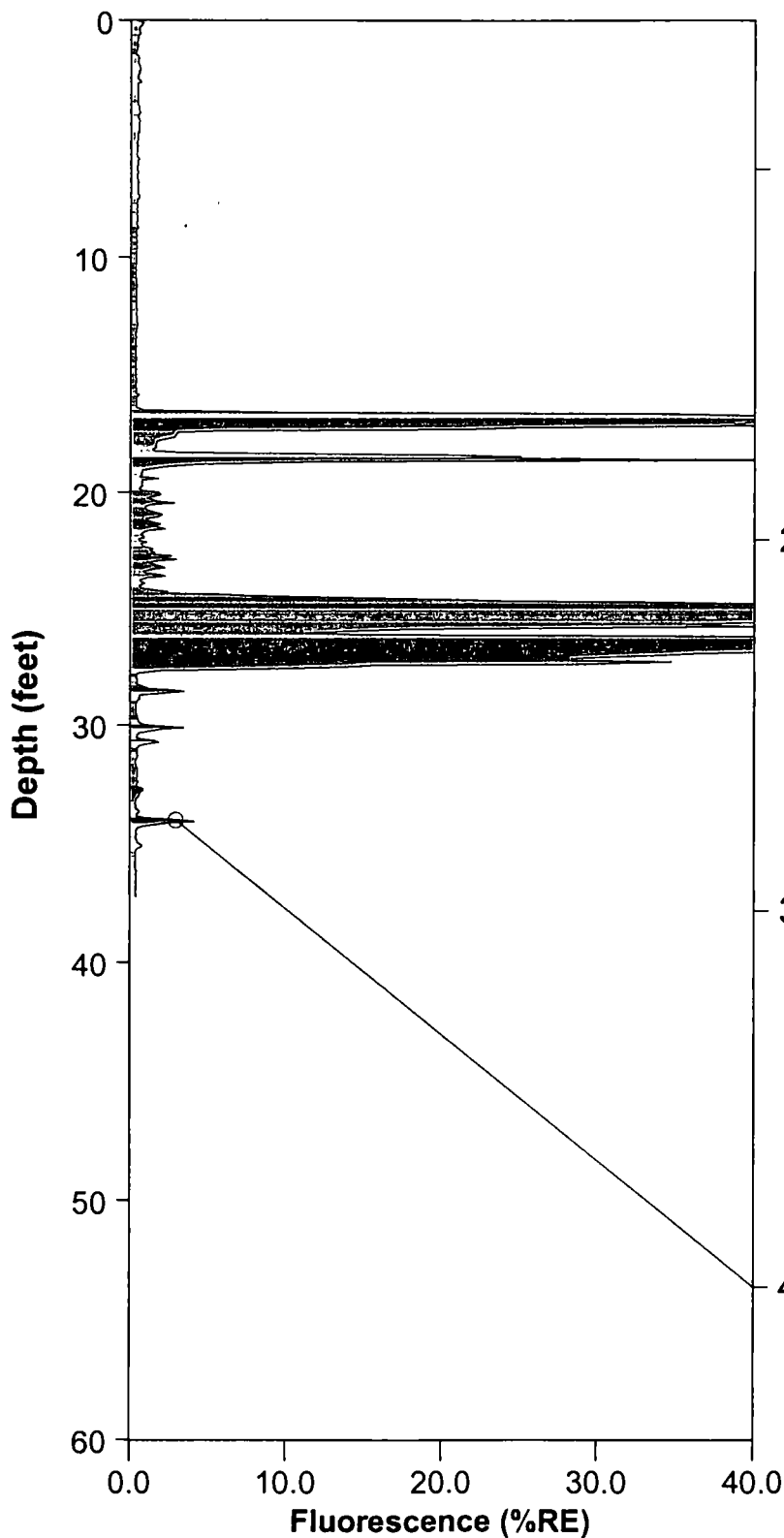
Operator: D. Deleon

Fugro Job #: 0303-0775

Max fluorescence: 247.90% @ 25.36 ft

Final depth BGS: 37.27 ft

R17



# ROST Fluorescence Response Data

Site: Lynwood, CA

Client: Ninyo & Moore

Date/Time: 02-25-2003 @ 13:28:56

ROST Unit: 1

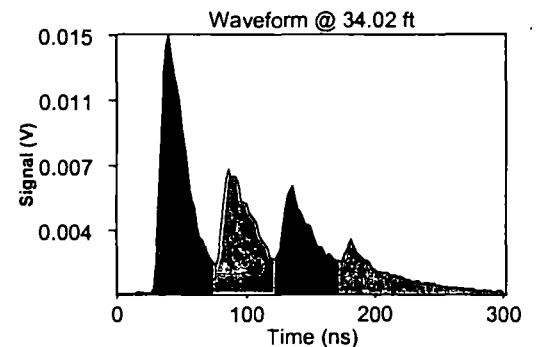
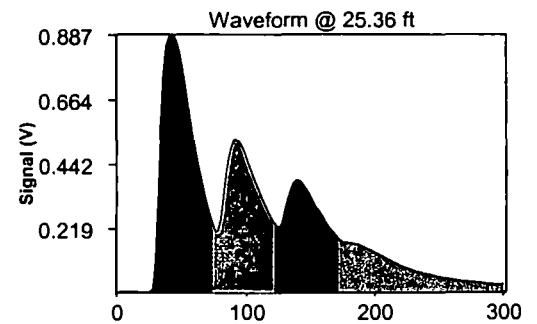
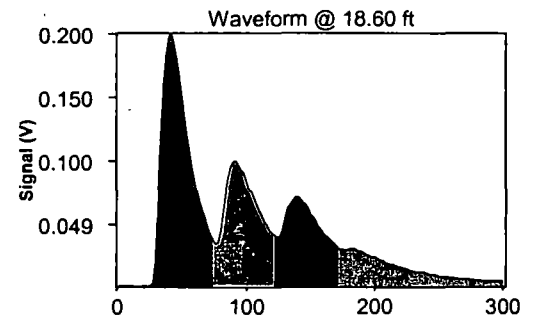
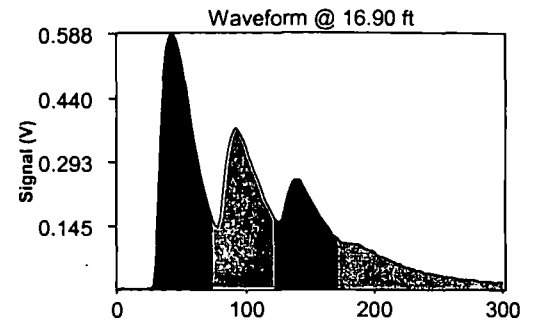
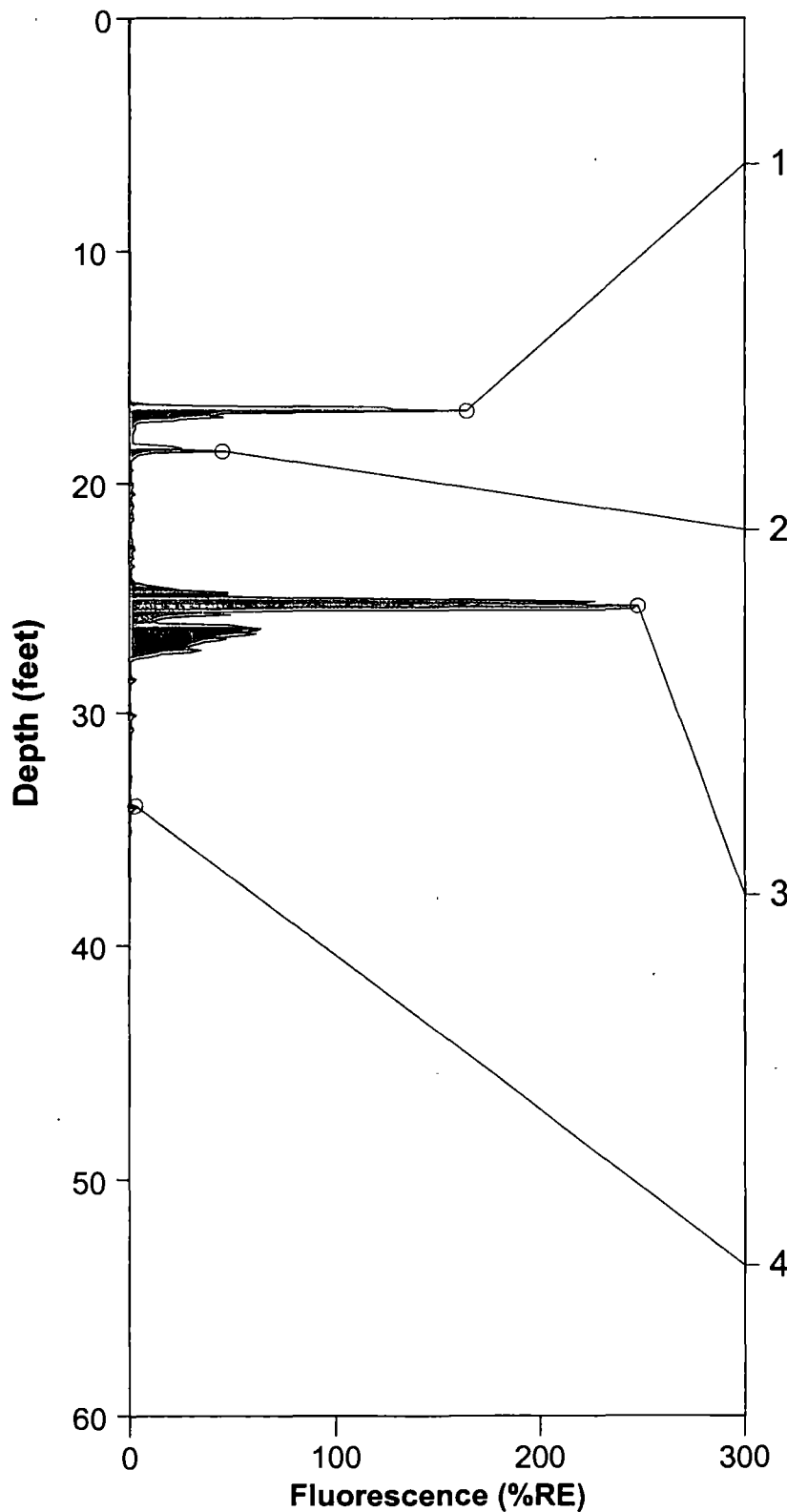
Operator: D. Deleon

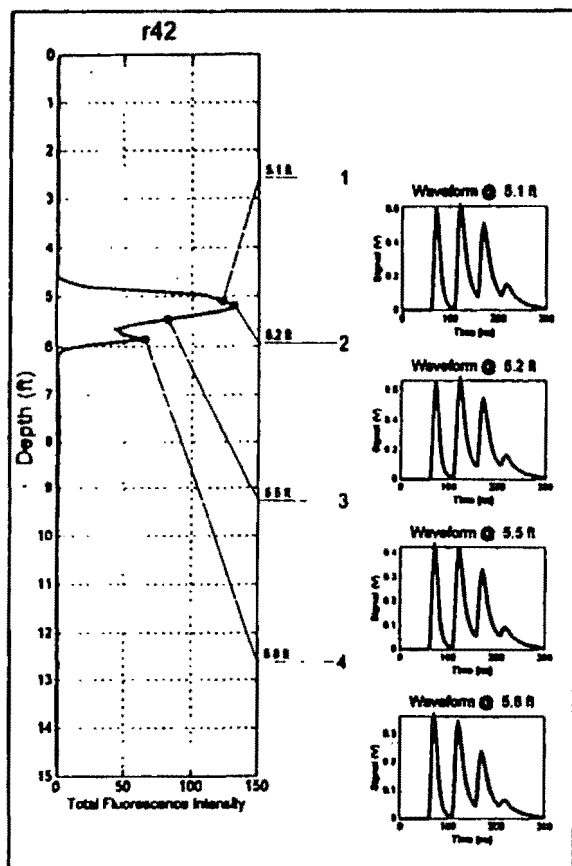
Fugro Job #: 0303-0775

Max fluorescence: 247.90% @ 25.36 ft

Final depth BGS: 37.27 ft

R17





Example Product Waveforms



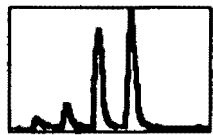
Jet Fuel



Diesel



Gasoline



Coal Tar/Creosote

## ROST™ Fluorescence vs Depth/ Waveform Log

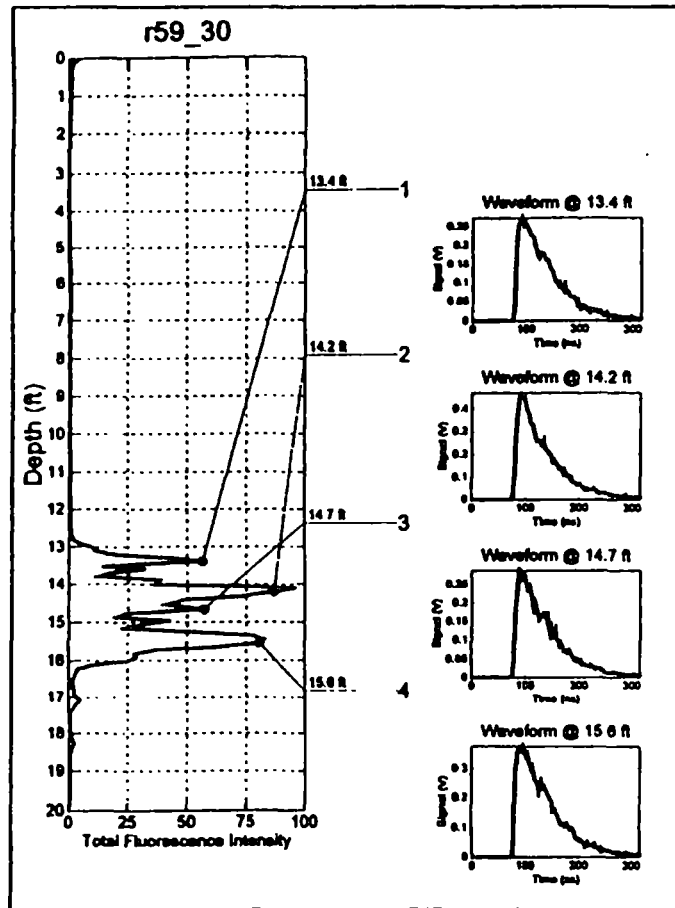
The graph on the left portion of the log presents the distribution of petroleum hydrocarbons (PHCs) continuously with depth as a function of fluorescence intensity. Fluorescence intensity is generally proportional to the PHC concentration in the soil. The particular spectral signature of the encountered PHC can be viewed at any depth of the ROST™ test and is illustrated on the right portion of the log.

Four peaks are presented on each waveform, and represent, from left to right, fluorescence intensity measured at each of the four monitored wavelengths: 340, 390, 440, and 490 nm.

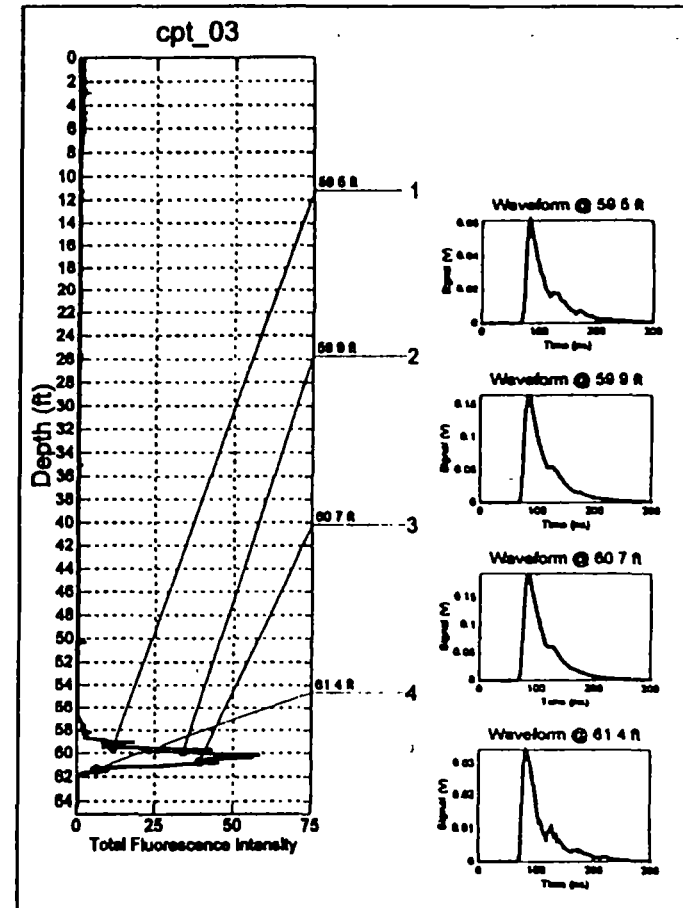
The shape of the waveform can be compared with those from common petroleum products to identify and differentiate encountered hydrocarbon products.



# ROST™ Jet Fuel Waveforms



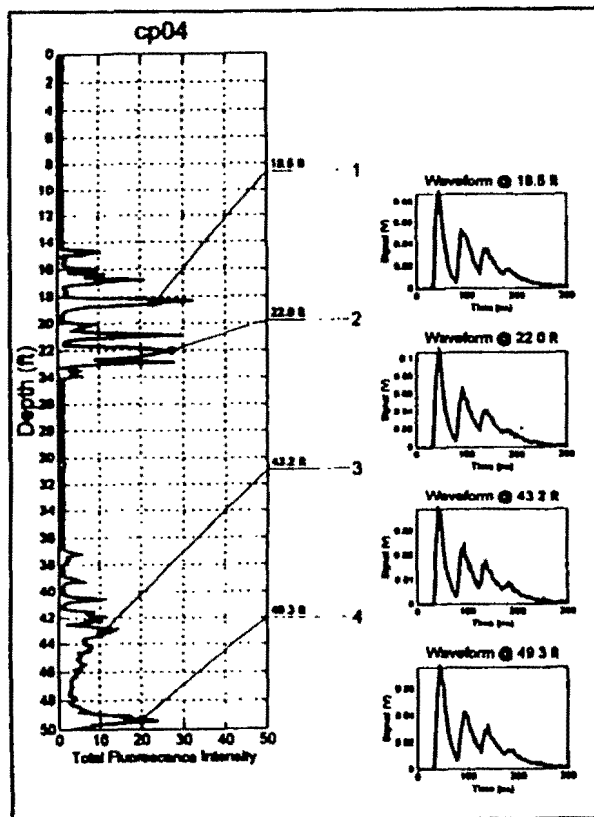
Air Force Base  
Georgia



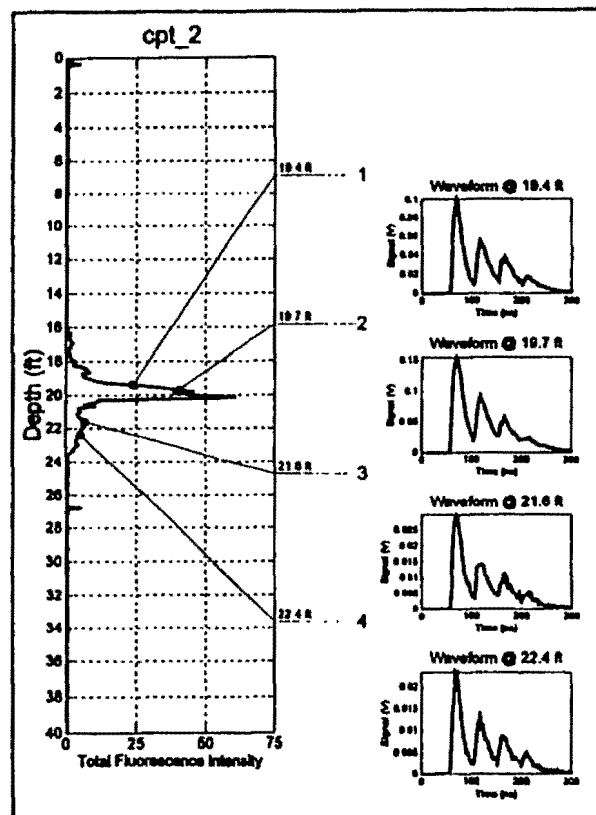
Military Facility  
Arizona



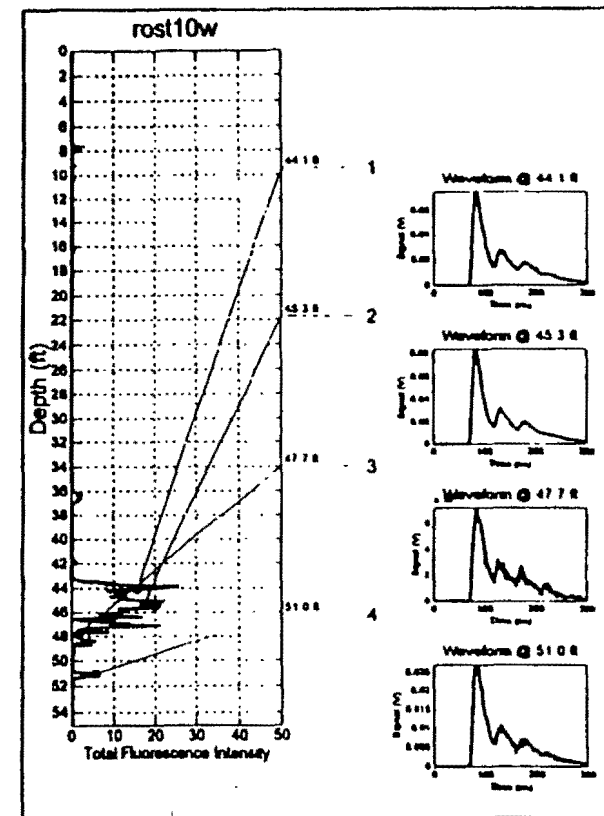
# ROST™ Gasoline Waveforms



Pipeline Site  
Mississippi



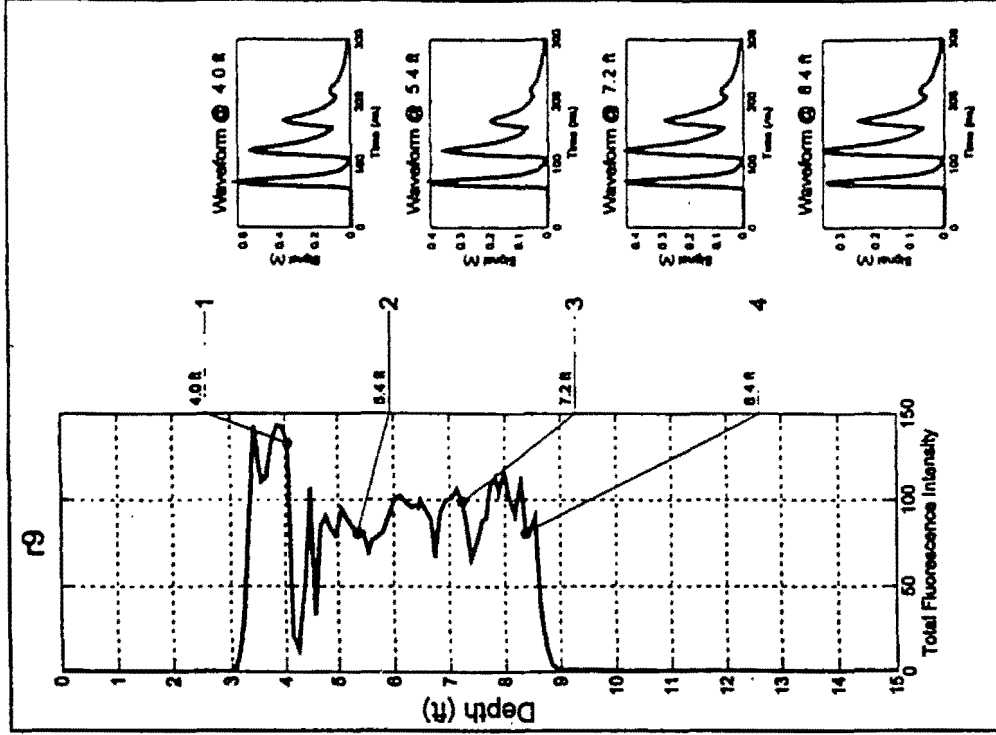
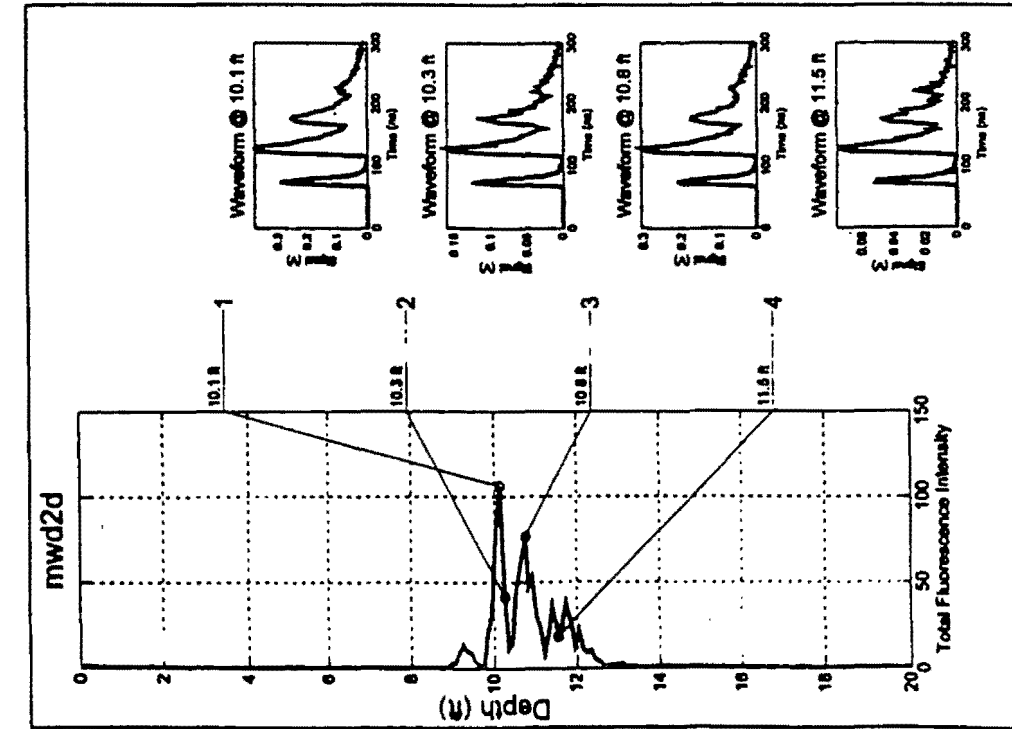
Underground Storage Tank Site  
Texas



Petroleum Refinery  
California



# ROST™ Diesel Waveforms

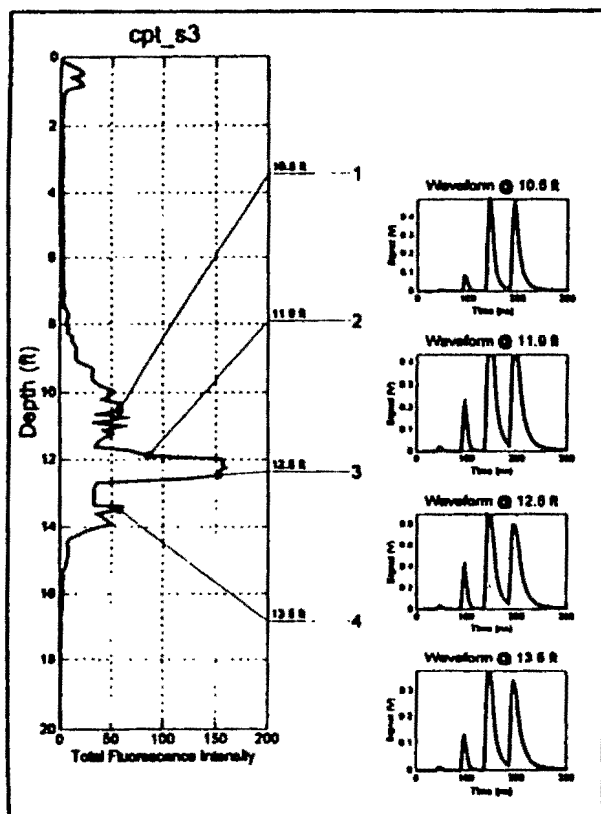


Pipeline Release  
Georgia

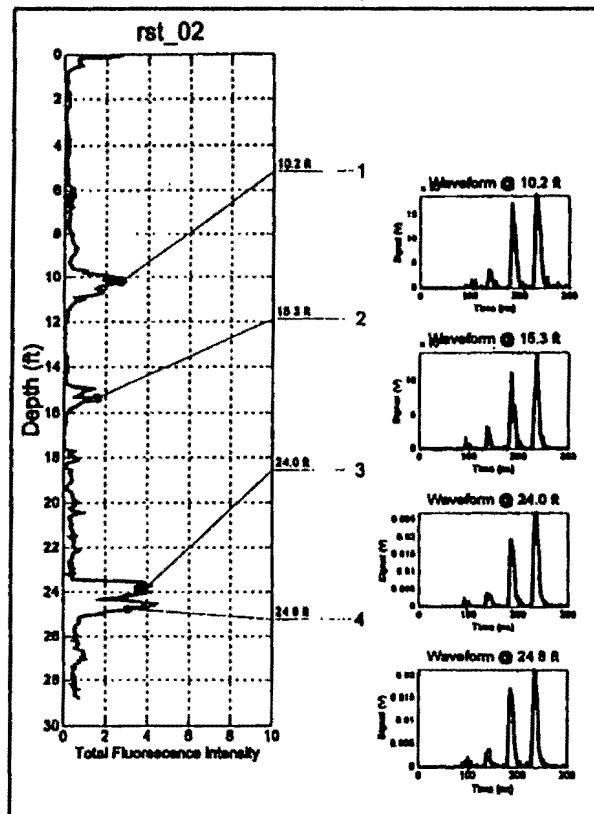
UST Site  
California



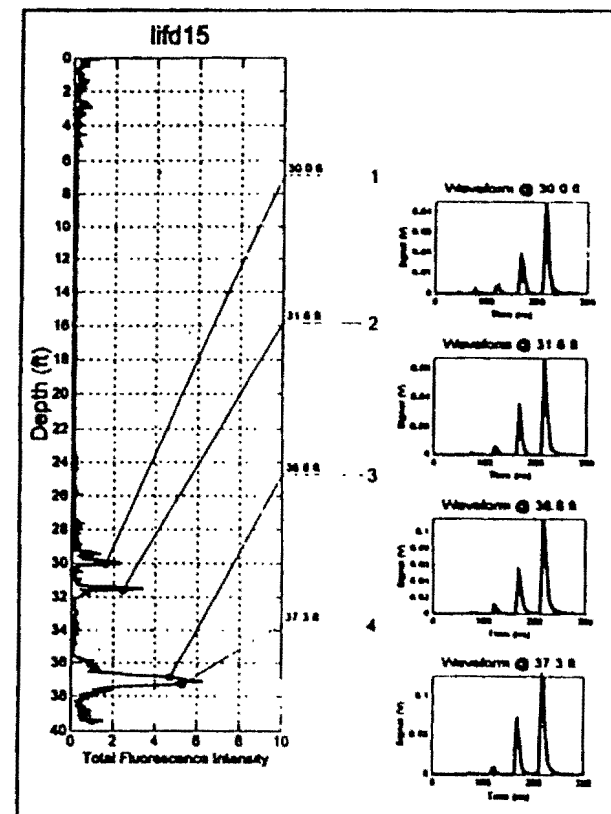
# ROST™ Coal Tar/Creosote Waveforms



Tar Site  
Texas



Wood Treatment Facility  
Mississippi



Wood Treatment Facility  
Virginia





**APPENDIX F**

**GROUNDWATER SAMPLING AND MONITORING FIELD DATA SHEETS**

## WELL GAUGING FORM

Date 3/17/03

Contractor Project No. WAI - 007

Location 11400 Long Beach Blvd.

Page 1 of 1

Contractor Winefield Associates Gauged by: Sheila K. Morrissey

[illegible]

Note: Gauging order shows cleanest to dirtiest based on analytical results from last quarter.

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. WAI-007  
 Station No.            Location 11600 Long Beach Blvd. Page        of         
 Contractor Wingfield & Associates Sampler Sheila K. Morrissey

Well ID: MW-24 Well Diameter: 4 in. Depth to Water: 23.10  
 Gauging Date: 3/17/03 Purging Method: Pump (Vac) Depth to Bottom: 41.59  
 Purging Date: 3/17/03 Sampling Method: bailed Water Column (ft): 18.49  
 Sampling Date: 3/17/03

## WELL PURGING:

Calculate volume of water to purge:

12 gals x 3 = 36 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons:

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 0830 Water Qual. Instrument Used: hydac.

	1	2	3	4	COMMENTS
TIME	0837	0843	0849		
TEMP (°F)	66.8	68.4	69.9		
pH	6.06	6.13	6.17		
CONDUCTIVITY	3400	3410	3480		
TURBIDITY	clear	clear	clear		
GALS REMOVED	13	25	36		

DO Pre-Purge Time            Reading            Post-Recharge Time            Reading             
 REDOX Pre-Purge Time            Reading            Post-Recharge Time            Reading             
 Total Gallons Purged: 36 Water Storage/Disposal Method vac truck No. of Drums Used             
 Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 0858 Recharge Level 23.68  
 Laboratory Sierra  
 Analyses Requested: TPHg            BTEX            MTBE            Other             
 Trip Blank ID            Duplicate ID             
 Equipment Blank ID           

## WELL INSPECTION:

Well Cap Secured ✓ Well Cap Locked no lock Traffic Cover Secured ✓ (1 bolt).  
 Well Box Cleaned and Free of Water ✓  
 Repair/Replacement Performed none  
 Repair/Replacement Needed 1 bolt missing, other bolt not threaded.

\*Diary

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. WAI-007

Station No.            Location 11600 Long Beach Blvd.

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Contractor Winefield & Associates

Sampler Sheila K. Morrissey

Well ID: MW-25 Well Name:            Well Depth: 20.40  
Gauging Date: 3/1/00 Sampling Date: 3/1/00  
Purging Date: 3/1/00 Sampling Date: 3/1/00  
Sampling Date: 3/1/00

## WELL PURGING:

Calculate volume of water to purge:

14.4 gals x 3 = 43.2 gals  
(1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipiers for converting length of water column (feet) to gallons.

Well Diameter	Multplier	Well Diameter	Multplier	Well Diameter	Multplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.85	other	radius (squared) x 0.162

Purge Start Time: 0940

Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	0947	0951	0958		
TEMP (°F)	71.2	70.1	68.9		
pH	7.47	7.45	6.60		
CONDUCTIVITY	2660	2480	2480		
TURBIDITY	clear	clear	clear		
GALS REMOVED	20	30	45		

DO Pre-Purge Time            Reading            Post-Recharge Time            Reading           

REDOX Pre-Purge Time            Reading            Post-Recharge Time            Reading           

Total Gallons Purged: 45 Water Storage/Disposal Method VAC truck No. of Drums Used           

Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 0958 Recharge Level 25.05

Laboratory Sierra Jones, MicrobeIntech.

Analyses Requested TPHg            BTEX            MTBE            Other           

Trip Blank ID            Duplicate ID           

Equipment Blank ID           

## WELL INSPECTION:

Well Cap Secured ✓ Well Cap Locked no lock Traffic Cover Secured ✓

Well Box Cleaned and Free of Water ✓

Repair/Replacement Performed none

Repair/Replacement Needed none

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No WAI-007

Station No.            Location 11600 Long Beach Blvd.

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Contractor Winefield & Associates

Sampler Shirle K. Morrissey

Well ID: MW-33 Well Diameter:            Depth: 22.05  
 Gauging Date: 3/10/77 Pumping Method:            Pumping Rate:             
 Purging Date: 3/10/77 Sampling Date: 3/10/77  
 Sampling Date: 3/10/77

## WELL PURGING:

Calculate volume of water to purge:

14 gals x 3 = 42 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.85	other	radius (squared) x 0.163

Purge Start Time: 1038 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1049	1052	1055		
TEMP (°F)	73.4	71.0	69.8		
pH	7.35	7.25	7.32		
CONDUCTIVITY	2340	2310	2280		
TURBIDITY	clear	clear	clear		
GALS REMOVED	20	30	45		

DO Pre-Purge Time            Reading            Post-Recharge Time            Reading           

REDOX Pre-Purge Time            Reading            Post-Recharge Time            Reading           

Total Gallons Purged: 45 Water Storage/Disposal Method vac truck No. of Drums Used           

Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 1055 Recharge Level 24.50

Laboratory Sierra, Jones

Analyses Requested: TPHg            BTEX            MTBE            Other           

Trp Blank ID            Duplicate ID           

Equipment Blank ID           

## WELL INSPECTION:

Well Cap Secured ✓ Well Cap Locked no lock Traffic Cover Secured ✓

Well Box Cleaned and Free of Water ✓

Repair/Replacement Performed none

Repair/Replacement Needed none

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. WAI-007

Station No.            Location 11600 Long Beach Blvd.

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Contractor Winefield & Associates

Sampler Sheila K. Morrissey

Well ID: MW-13 Well Diameter:            Depth to Water: 23.77  
 Gauging Date: 3/17/05 Pumping Method:            Depth to Bottom: 24.30  
 Purging Date: 3/17/05 Sampling Date: 3/17/05 Volume Pumped (gals): 20.53  
 Sampling Date: 3/17/05

**WELL PURGING:**

Calculate volume of water to purge:  
13.3 gals x 3 = 39.9 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	5 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius squared x 0.16

Purge Start Time: 1147 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	<u>1157</u>	<u>1200</u>	<u>1206</u>		
TEMP (°F)	<u>76.6</u>	<u>71.8</u>	<u>69.5</u>		
pH	<u>7.53</u>	<u>7.42</u>	<u>7.18</u>		
CONDUCTIVITY	<u>2580</u>	<u>2530</u>	<u>2490</u>		
TURBIDITY	<u>clear</u>	<u>clear</u>	<u>clear</u>		
GALS REMOVED	<u>15</u>	<u>26</u>	<u>40</u>		

DO Pre-Purge Time            Reading            Post-Recharge Time            Reading           

REDOX Pre-Purge Time            Reading            Post-Recharge Time            Reading           

Total Gallons Purged: 40 Water Storage/Disposal Method truck No. of Drums Used           

Did Well Dewater? no

**WELL SAMPLING:**

Sampling Time 1209 Recharge Level 24.63

Laboratory Sierra Jones

Analyses Requested: TPHg            BTEX            MTBE            Other           

Trip Blank ID            Duplicate ID           

Equipment Blank ID           

**WELL INSPECTION:**

Well Cap Secured ✓ Well Cap Locked no lock Traffic Cover Secured ✓

Well Box Cleaned and Free of Water           

Repair/Replacement Performed none

Repair/Replacement Needed none

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No WAI-007  
 Station No \_\_\_\_\_ Location 11600 Long Beach Blvd. Page 1 of \_\_\_\_\_  
 Contractor Winefield & Assoc. Sampler Sheila K Morrissey

Well ID: MW-19 Well Diameter: 4 inch Depth: 28.20  
 Gauging Date: 3/17/06 Gauging Time: 11:00 Depth to Bottom: 41.20  
 Purging Date: 3/17/06 Purging Volume: 35.4 Gallons (G) 18.08  
 Sampling Date: 3/17/06

## WELL PURGING:

Calculate volume of water to purge:

11.8 gals x 3 = 35.4 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.85	other	radius (squared) x 0.162

Purge Start Time: 1317 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1322	1328	1333		Coarse sand
TEMP (°F)	74.5	71.5	71.6		being pumped out.
pH	7.60	7.69	7.56		
CONDUCTIVITY	1980	1850	1900		
TURBIDITY	clear	clear	clear		
GALS. REMOVED	13	24	36		

DO Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 REDOX Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 Total Gallons Purged: 36 Water Storage/Disposal Method Vac truck No. of Drums Used \_\_\_\_\_  
 Did Well Dewater? no.

## WELL SAMPLING:

Sampling Time 1334 Recharge Level 24.64  
 Laboratory Sierra, Jones.  
 Analyses Requested TPHg \_\_\_\_\_ BTEX \_\_\_\_\_ MTBE \_\_\_\_\_ Other \_\_\_\_\_  
 Trip Blank ID \_\_\_\_\_ Duplicate ID \_\_\_\_\_  
 Equipment Blank ID \_\_\_\_\_

## WELL INSPECTION:

Well Cap Secured ☒ Well Cap Locked no lock Traffic Cover Secured ☒  
 Well Box Cleaned and Free of Water ☒  
 Repair/Replacement Performed none

Repair/Replacement Needed none

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. WAI-007  
 Station No.            Location 11600 Long Beach Blvd. Page 1 of             
 Contractor Winfield & Assoc. Sampler Shelak Morrissey

Well ID: MW-6 Well Diameter: 4 inch Depth: 23.25  
 Gauging Date: 3/17/02 Gauging Time: 11:07  
 Purging Date: 3/17/02 Purging Time: 15:17  
 Sampling Date: 3/17/02

## WELL PURGING:

Calculate volume of water to purge:

11.8 gals x 3 = 35.4 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipiers for converting length of water column (feet) to gallons

Well Diameter	Multipier	Well Diameter	Multipier	Well Diameter	Multipier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 1400

Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1415	1425	1440		
TEMP (°F)	63.4	64.3	63.3		
pH	7.54	7.65	7.50		
CONDUCTIVITY	3450	3420	2520		
TURBIDITY	d. turbid	clear	v. turbid		
GALS. REMOVED	12	24	36		

DO Pre-Purge Time            Reading            Post-Recharge Time            Reading           

REDOX Pre-Purge Time            Reading            Post-Recharge Time            Reading           

Total Gallons Purged: 36 Water Storage/Disposal Method Vac truck No. of Drums Used           

Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 1245 Recharge Level 30.45 23.20

Laboratory Sierra Jones

Analyses Requested: TPHg            BTEX            MTBE            Other           

Trip Blank ID            Duplicate ID           

Equipment Blank ID           

## WELL INSPECTION:

Well Cap Secured ✓ Well Cap Locked no lock Traffic Cover Secured ✓

Well Box Cleaned and Free of Water ✓

Repair/Replacement Performed none

Repair/Replacement Needed none



# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. WAI-007  
 Station No. \_\_\_\_\_ Location 11600 Long Beach Blvd. Page 1 of \_\_\_\_\_  
 Contractor Winefield & Assoc. Sampler Shela K Morrissey

Well ID: MW-17 Well Depth: 22.95  
 Gauging Date: 3/1/00 Sampling Date: 3/1/00  
 Purging Date: 3/1/00 Sampling Date: 3/1/00  
 Sampling Date: 3/1/00

## WELL PURGING:

Calculate volume of water to purge:

13.5 gals' x 3 = 40.5 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons.

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.33	6 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 1505 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1513	1517	1521		
TEMP (°F)	67.9	66.6	67.9		
pH	7.58	7.51	7.35		
CONDUCTIVITY	2470	2400	2340		
TURBIDITY	sl. turbid	clear	clear		
GALS REMOVED	14	30	41		

DO Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 REDOX Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 Total Gallons Purged: 41 Water Storage/Disposal Method Vac truck No. of Drums Used \_\_\_\_\_  
 Did Well Dewater? no

WELL SAMPLING: 1525 Recharge Level 24.67  
 Sampling Time \_\_\_\_\_  
 Laboratory Sierra, Jones  
 Analyses Requested: TPHg \_\_\_\_\_ BTEX \_\_\_\_\_ MTBE \_\_\_\_\_ Other \_\_\_\_\_  
 Trip Blank ID \_\_\_\_\_ Duplicate ID \_\_\_\_\_  
 Equipment Blank ID \_\_\_\_\_

## WELL INSPECTION:

Well Cap Secured ☒ Well Cap Locked no lock Traffic Cover Secured ☒  
 Well Box Cleaned and Free of Water ☒  
 Repair/Replacement Performed none  
 Repair/Replacement Needed none

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No WAI-007

Station No      Location 11600 Long Beach Blvd.

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Contractor Winefield & Assoc.

Sampler Sheila K. Morrissey

Well ID: MW-4  
 Gauging Date: 8/12/06  
 Purging Date: 8/12/06  
 Sampling Date: 8/12/06

## WELL PURGING:

Calculate volume of water to purge:

12.7 gals x 3 = 38.1 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 1631 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1641	1648	1653		
TEMP (°F)	68.6	67.9	69.0		
pH	7.62	7.58	7.51		
CONDUCTIVITY	3840	3460	3280		
TURBIDITY	clear	clear	clear		
GALS REMOVED	13	26	39		

DO Pre-Purge Time      Reading      Post-Recharge Time      Reading     

REDOX Pre-Purge Time      Reading      Post-Recharge Time      Reading     

Total Gallons Purged: 39 Water Storage/Disposal Method Vac truck No. of Drums Used     

Did Well Dewater? no.

## WELL SAMPLING:

Sampling Time 24.80 Recharge Level 1657

Laboratory Sierra, Jones

Analyses Requested: TPHg      BTEX      MTBE      Other     

Trp Blank ID      Duplicate ID     

Equipment Blank ID     

## WELL INSPECTION:

Well Cap Secured ✓

Well Cap Locked no lock

Traffic Cover Secured ✓

Well Box Cleaned and Free of Water ✓

Repair/Replacement Performed none

Repair/Replacement Needed none

## WELL GAUGING FORM

Date 3-21-03 Contractor Project No. LYN-06-202

Location 11600 Long Beach Blvd.

Page 1 of 1

Contractor Winefield & Associates Gauged by: Sheila K. Morrissey

[illegible]

Note Gauging order shows cleanest to dirtiest based on analytical results from last quarter.

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No LYN-06-202

Station No            Location 11600 Long Beach Blvd, Lynwood.

Page 1 of 1

Contractor Wingfield & Associates

Sampler Sheila K. Morrissey

Well ID: <u>WEA-MW-2</u>	Well Diameter: <u>2 in</u>	Depth to Water: <u>23.58</u>
Gauging Date: <u>3/21/03</u>	Purging Method: <u>Vac</u>	Depth to Bottom: <u>49.80</u>
Purging Date: <u>3/21/03</u>	Sampling Method: <u>305</u>	Water Column: <u>21.30</u>
Sampling Date: <u>3/21/03</u>		

**WELL PURGING:**

Calculate volume of water to purge:

3.4 gals x 3 = 10.2 gals

(1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons:

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.85	other	radius (squared) x 0.163

Purge Start Time: 0853

Water Qual. Instrument Used: Hydac

	1	2	3	4	COMMENTS
TIME	<u>0854</u>	<u>0858</u>	<u>0900</u>		
TEMP (°F)	<u>64.7</u>	<u>65.2</u>	<u>65.3</u>		
pH	<u>7.61</u>	<u>7.60</u>	<u>7.59</u>		
CONDUCTIVITY	<u>3330</u>	<u>3350</u>	<u>3350</u>		
TURBIDITY	<u>sl. turbid</u>	<u>clear</u>	<u>clear</u>		
GALS. REMOVED	<u>4</u>	<u>8</u>	<u>15</u>		

DO Pre-Purge Time            Reading            Post-Recharge Time            Reading           

REDOX Pre-Purge Time            Reading            Post-Recharge Time            Reading           

Total Gallons Purged: 15 Water Storage/Disposal Method Vac truck No. of Drums Used           

Did Well Dewater? no

**WELL SAMPLING:**

Sampling Time 0905 Recharge Level 23.91

Laboratory Jones

Analyses Requested: TPHg            BTEX            MTBE            Other           

Tnp Blank ID            Duplicate ID           

Equipment Blank ID           

**WELL INSPECTION:**

Well Cap Secured ✓ Well Cap Locked no Traffic Cover Secured ✓

Well Box Cleaned and Free of Water ✓

Repair/Replacement Performed           

Repair/Replacement Needed

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No LYN-06-202  
 Station No \_\_\_\_\_ Location 11600 Long Beach Blvd., Lynwood Page 1 of 1  
 Contractor Wirefield & Assoc. Sampler Shila K. Morrissey

Well ID: W9A-MW-3 Well Diameter: 2.5 ft. 23.12  
 Gauging Date: 3/21/03 Pumping Rate: 16.5 gpm 44.90  
 Purging Date: 3/21/03 Sampling Rate: 16.5 gpm 44.90  
 Sampling Date: 3/21/03

## WELL PURGING:

Calculate volume of water to purge:

3.5 gals x 3 = 10.5 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons:

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	<u>0.18</u>	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 0928 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	<u>0931</u>	<u>0933</u>	<u>0935</u>		
TEMP (°F)	<u>66.3</u>	<u>68.3</u>	<u>68.6</u>		
pH	<u>7.48</u>	<u>7.47</u>	<u>7.47</u>		
CONDUCTIVITY	<u>3170</u>	<u>3240</u>	<u>3260</u>		
TURBIDITY	<u>sl. turbid</u>	<u>sl. turbid</u>	<u>sl. turbid</u>		
GALS. REMOVED	<u>3</u>	<u>8</u>	<u>11</u>		

DO Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_

REDOX Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_

Total Gallons Purged: 11 Water Storage/Disposal Method vac truck No. of Drums Used \_\_\_\_\_

Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 0936 Recharge Level 23.51  
 Laboratory Jones, Microbe Inotech

Analyses Requested: TPHg \_\_\_\_\_ BTEX \_\_\_\_\_ MTBE \_\_\_\_\_ Other \_\_\_\_\_

Trip Blank ID \_\_\_\_\_ Duplicate ID \_\_\_\_\_

Equipment Blank ID \_\_\_\_\_

## WELL INSPECTION:

Well Cap Secured ☒ Well Cap Locked no Traffic Cover Secured ☒

Well Box Cleaned and Free of Water ☒

Repair/Replacement Performed \_\_\_\_\_

Repair/Replacement Needed \_\_\_\_\_

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. LN-06-202  
 Station No. \_\_\_\_\_ Location 11600 Long Beach Blvd, Lynwood Page 1 of 1  
 Contractor Winfield & Assoc. Sampler Shila K. Morrissey

Well ID: WKA-MW-4 Well Diameter 2 in Screened Interval 22.70  
 Gauging Date: 3/21/03 Pumping Method VAC Screen Bottom 181.89  
 Purging Date: 3/21/03 Sampling Method Grab Well Casing ID 2.00  
 Sampling Date: 3/21/03

## WELL PURGING:

Calculate volume of water to purge:

3.6 gals x 3 = 10.8 gals

(1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 1006 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1008	1010	1012		
TEMP (°F)	73.1	72.8	72.5		
pH	7.39	7.34	7.33		
CONDUCTIVITY	2330	2260	2230		
TURBIDITY	sl. turbid.	clear	clear		
GALS. REMOVED	4	8	11		

DO Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_

REDOX Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_

Total Gallons Purged: 11 Water Storage/Disposal Method VAC truck No. of Drums Used \_\_\_\_\_

Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 1015 Recharge Level 23.08

Laboratory JONES

Analyses Requested: TPHg \_\_\_\_\_ BTEX \_\_\_\_\_ MTBE \_\_\_\_\_ Other \_\_\_\_\_

Trip Blank ID \_\_\_\_\_ Duplicate ID \_\_\_\_\_

Equipment Blank ID \_\_\_\_\_

## WELL INSPECTION:

Well Cap Secured ☒ Well Cap Locked no Traffic Cover Secured ☒

Well Box Cleaned and Free of Water ☒

Repair/Replacement Performed \_\_\_\_\_

Repair/Replacement Needed \_\_\_\_\_

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. LYN-06-202  
 Station No. \_\_\_\_\_ Location 11600 Long Beach Blvd., Lynwood Page \_\_\_\_\_ of \_\_\_\_\_  
 Contractor Winefield & Associates Sampler Shelak Morrissey

Well ID: WFA-MW-1 Well Diameter: 6 in Purge Water: 23.70  
 Gauging Date: 3-21-03 Purging Method: VAC Purge Rate: 44.85  
 Purging Date: 3-21-03 Sampling Method: Grab Water Column (ft): 21.15  
 Sampling Date: 3-21-03

## WELL PURGING:

Calculate volume of water to purge:

3.4 gals x 3 = 10.2 gals

(1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons:

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.37	6 inch	1.47
2 inch	0.16	4 inch	0.85	other	radius (squared) x 0.163

Purge Start Time: 1033 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1035	1037	1039		
TEMP (°F)	77.7	73.9	73.3		
pH	7.36	7.38	7.41		
CONDUCTIVITY	1750	1500	1430		
TURBIDITY	turbid	sl. turbid	sl. turbid		
GALS. REMOVED	9	8	11		

DO Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 REDOX Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 Total Gallons Purged: 11 Water Storage/Disposal Method \_\_\_\_\_ No. of Drums Used \_\_\_\_\_  
 Did Well Dewater? no

## WELL SAMPLING:

Sampling Time 1046 Recharge Level 25.00  
 Laboratory Jones, MicrobeInotech.  
 Analyses Requested: TPHg \_\_\_\_\_ BTEX \_\_\_\_\_ MTBE \_\_\_\_\_ Other \_\_\_\_\_  
 Trip Blank ID \_\_\_\_\_ Duplicate ID \_\_\_\_\_  
 Equipment Blank ID \_\_\_\_\_

## WELL INSPECTION:

Well Cap Secured ☒ Well Cap Locked no Traffic Cover Secured ☒  
 Well Box Cleaned and Free of Water ☒  
 Repair/Replacement Performed \_\_\_\_\_

Repair/Replacement Needed \_\_\_\_\_

# WELL PURGING, SAMPLING AND INSPECTION FORM

Contractor Job No. LYN-06-202  
 Station No. \_\_\_\_\_ Location 11600 Long Beach Blvd, Lynwood. Page 1 of 1  
 Contractor Winefield & Associates Sampler Sheila K. Morrissey

Well ID: MW-17 Well Diameter: 4 inch Completion Date: 12-00-00  
 Gauging Date: 8-21-03 Purging Method: Vac Initial Depth: 131.75  
 Purging Date: 3-21-03 Sampling Method: grab Final Depth: 201.75  
 Sampling Date: 3-21-03

## WELL PURGING:

Calculate volume of water to purge:

13.5 gals x 3 = 40.5 gals  
 (1 casing volume) (no. of volumes to purge) (total volume to purge)

Multipliers for converting length of water column (feet) to gallons:

Well Diameter	Multiplier	Well Diameter	Multiplier	Well Diameter	Multiplier
1 inch	0.04	3 inch	0.32	6 inch	1.47
2 inch	0.16	4 inch	0.65	other	radius (squared) x 0.163

Purge Start Time: 1113 Water Qual. Instrument Used: hydac

	1	2	3	4	COMMENTS
TIME	1121	1128	1136		
TEMP (°F)	79.4	77.3	76.1		
pH	7.39	7.41	7.42		
CONDUCTIVITY	2110	2120	2090		
TURBIDITY	clear	clear	clear		
GALS. REMOVED	14	28	71		

DO Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 REDOX Pre-Purge Time \_\_\_\_\_ Reading \_\_\_\_\_ Post-Recharge Time \_\_\_\_\_ Reading \_\_\_\_\_  
 Total Gallons Purged: 41 Water Storage/Disposal Method vac truck No. of Drums Used \_\_\_\_\_  
 Did Well Dewater? no

WELL SAMPLING:  
 Sampling Time 1138 Recharge Level 24.75  
 Laboratory Microbe Inotech.  
 Analyses Requested: TPHg \_\_\_\_\_ BTEX \_\_\_\_\_ MTBE \_\_\_\_\_ Other \_\_\_\_\_  
 Trip Blank ID \_\_\_\_\_ Duplicate ID \_\_\_\_\_  
 Equipment Blank ID \_\_\_\_\_

## WELL INSPECTION:

Well Cap Secured ☒ Well Cap Locked no Traffic Cover Secured ☒  
 Well Box Cleaned and Free of Water ☒  
 Repair/Replacement Performed \_\_\_\_\_

Repair/Replacement Needed 1 belt missing, other doesn't thread



**APPENDIX G**

**SOIL LABORATORY REPORTS AND C-O-C RECORDS**



# Jones Environmental, Inc.

Testing Laboratories

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JONES ENVIRONMENTAL

## LABORATORY REPORT

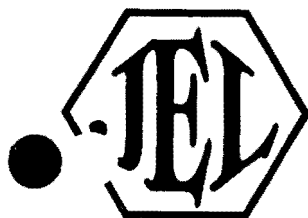
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
Project:	Lynwood Springs	Date Received:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Date Analyzed:	02/10/03
		Physical State:	Soil/Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



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## JONES ENVIRONMENTAL

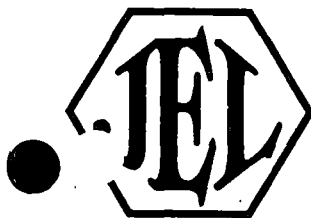
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;AMW1</u> <u>-26</u>	<u>W&amp;AMW4</u> <u>-25</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>				
Benzene	ND	ND	2.0	ug/Kg
Bromodichloromethane	ND	ND	2.0	ug/Kg
Bromoform	ND	ND	2.0	ug/Kg
Bromomethane	ND	ND	2.0	ug/Kg
n-Butylbenzene	ND	ND	2.0	ug/Kg
sec-Butylbenzene	ND	ND	2.0	ug/Kg
tert-Butylbenzene	ND	ND	2.0	ug/Kg
Carbon tetrachloride	ND	ND	2.0	ug/Kg
Chlorobenzene	ND	ND	2.0	ug/Kg
Chloroethane	ND	ND	2.0	ug/Kg
Chloroform	ND	ND	2.0	ug/Kg
Chloromethane	ND	ND	2.0	ug/Kg
2-Chlorotoluene	ND	ND	2.0	ug/Kg
4-Chlorotoluene	ND	ND	2.0	ug/Kg
Dibromochloromethane	ND	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	ND	2.0	ug/Kg
Dibromomethane	ND	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;AMW1</u> <u>-26</u>	<u>W&amp;AMW4</u> <u>-25</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>				
cis-1,2-Dichloroethene	ND	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	ND	2.0	ug/Kg
Ethylbenzene	ND	ND	2.0	ug/Kg
Hexachlorobutadiene	ND	ND	2.0	ug/Kg
Isopropylbenzene	ND	ND	2.0	ug/Kg
4-Isopropyltoluene	ND	ND	2.0	ug/Kg
Methylene chloride	ND	ND	2.0	ug/Kg
Naphthalene	ND	ND	2.0	ug/Kg
n-Propylbenzene	ND	ND	2.0	ug/Kg
Styrene	ND	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	ND	2.0	ug/Kg
Tetrachloroethylene	ND	ND	2.0	ug/Kg
Toluene	ND	ND	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	ND	2.0	ug/Kg
Trichloroethylene	ND	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

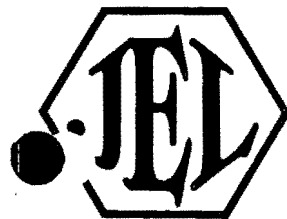
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;AMW1</u> -26	<u>W&amp;AMW4</u> -25	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>				
Trichlorofluoromethane	ND	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	ND	ND	2.0	ug/Kg
1,3,5-Trimethylbenzene	ND	ND	2.0	ug/Kg
Vinyl chloride	ND	ND	2.0	ug/Kg
Xylenes	ND	ND	2.0	ug/Kg
MTBE	ND	ND	2.0	ug/Kg
Ethyl-tert-butylether	ND	ND	2.0	ug/Kg
Di-isopropylether	ND	ND	2.0	ug/Kg
tert-amylmethylether	ND	ND	2.0	ug/Kg
tert-Butylalcohol	ND	ND	2.0	ug/Kg
<b>Dilution Factor</b>	1	1		
<b>Surrogate Recovery :</b>			<b>QC Limits</b>	
Dibromofluoromethane	103%	103%	60 - 140	
Toluene-d <sub>8</sub>	99%	99%	60 - 140	
4-Bromofluorobenzene	89%	102%	60 - 140	

ND = Not Detected



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### QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
Project:	Lynwood Springs	Date Received:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Date Analyzed:	02/10/03
		Physical State:	Soil

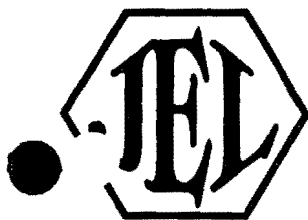
### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: W&AM1-26

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	93%	99%	5.4%	60 - 140
Chlorobenzene	98%	103%	4.3%	60 - 140
Toluene	99%	105%	6.0%	60 - 140
Trichloroethylene	92%	96%	3.7%	60 - 140
1,1-Dichloroethylene	107%	113%	5.9%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference



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## JONES ENVIRONMENTAL

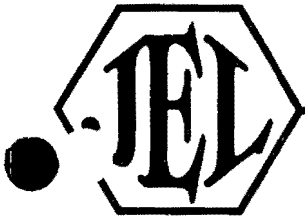
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-ER-</u> <u>I</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Benzene	ND	0.5	ug/L
Bromodichloromethane	ND	0.5	ug/L
Bromoform	ND	0.5	ug/L
Bromomethane	ND	0.5	ug/L
n-Butylbenzene	ND	0.5	ug/L
sec-Butylbenzene	ND	0.5	ug/L
tert-Butylbenzene	ND	0.5	ug/L
Carbon tetrachloride	ND	0.5	ug/L
Chlorobenzene	ND	0.5	ug/L
Chloroethane	ND	0.5	ug/L
Chloroform	ND	0.5	ug/L
Chloromethane	ND	0.5	ug/L
2-Chlorotoluene	ND	0.5	ug/L
4-Chlorotoluene	ND	0.5	ug/L
Dibromochloromethane	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	0.5	ug/L
Dibromomethane	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	0.5	ug/L
Dichlorodifluoromethane	ND	0.5	ug/L
1,1-Dichloroethane	ND	0.5	ug/L
1,2-Dichloroethane	ND	0.5	ug/L
1,1-Dichloroethene	ND	0.5	ug/L

ND = Not Detected



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### LABORATORY RESULTS

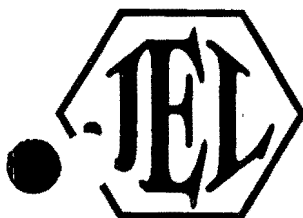
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-ER-</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
	1		
<b>Analytes:</b>			
cis-1,2-Dichloroethene	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	0.5	ug/L
1,2-Dichloropropane	ND	0.5	ug/L
1,3-Dichloropropane	ND	0.5	ug/L
2,2-Dichloropropane	ND	0.5	ug/L
1,1-Dichloropropene	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	0.5	ug/L
Ethylbenzene	ND	0.5	ug/L
Hexachlorobutadiene	ND	0.5	ug/L
Isopropylbenzene	ND	0.5	ug/L
4-Isopropyltoluene	ND	0.5	ug/L
Methylene chloride	ND	0.5	ug/L
Naphthalene	ND	0.5	ug/L
n-Propylbenzene	ND	0.5	ug/L
Styrene	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L
Tetrachloroethylene	ND	0.5	ug/L
Toluene	ND	0.5	ug/L
1,2,3-Trichlorobenzene	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	0.5	ug/L
Trichloroethylene	ND	0.5	ug/L

ND = Not Detected





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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
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		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-ER-</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
	<u>1</u>		
Analytes:			
Trichlorofluoromethane	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	0.5	ug/L
1,3,5-Trimethylbenzene	ND	0.5	ug/L
Vinyl chloride	ND	0.5	ug/L
Xylenes	ND	0.5	ug/L
MTBE	ND	0.5	ug/L
Ethyl-tert-butylether	ND	0.5	ug/L
Di-isopropylether	ND	0.5	ug/L
tert-amylmethylether	ND	0.5	ug/L
tert-Butylalcohol	ND	0.5	ug/L

Dilution Factor 1

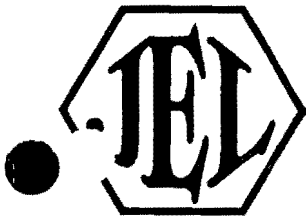
#### Surrogate Recovery :

Dibromofluoromethane	105%
Toluene-d <sub>8</sub>	98%
4-Bromofluorobenzene	102%

#### QC Limits

60 - 140
60 - 140
60 - 140

ND = Not Detected



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JONES ENVIRONMENTAL

## QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/12/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0492
Attn:	Hector Garcia	Date Sampled:	02/10/03
		Date Received:	02/10/03
Project:	Lynwood Springs	Date Analyzed:	02/10/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

## EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: W&A-ER-1

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	96%	96%	0.1%	60 - 140
Chlorobenzene	99%	104%	4.7%	60 - 140
Toluene	94%	101%	7.0%	60 - 140
Trichloroethylene	94%	93%	1.8%	60 - 140
1,1-Dichloroethylene	111%	109%	1.7%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference

# Chain-of-Custody Record

Client Winefield & Associates Date 2/10/03

Project Name Lynwood Springs Client Project # \_\_\_\_\_

Project Address 11600 S Long Beach Blvd.  
Lynwood, CA

Project Contact \_\_\_\_\_

Turn Around Requested:  
☒ Immediate Attention temperature  
☒ Rush 24-48 Hours 48 hrs for 5635  
☐ Rush 72-96 Hours  
☒ Normal all other analyses  
☐ Mobile Lab

JEL Project # CU492

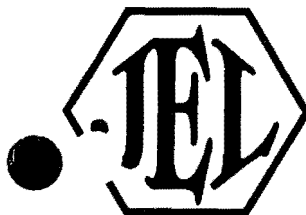
Page 1 of 1

Lab Use Only

Sample Condition as Received:  
 Chilled ☐ yes ☒ no  
 Sealed ☒ yes ☐ no

Sample ID	Sample Location	Date	Time	Laboratory Sample Number	Sample Matrix - Soil (S), Sludge (SL), Aqueous (A)	Analysis Requested	Number of Containers	Remarks/Special Instructions
WEA-MW1-26	WEA-MW-1	2/10/03	0930		S X X		4	
temperature blank 1	WEA-MW-1	2/10/03	1130		W	X	1	5.8°C upon receipt
WEA-MW4-25	WEA-MW-4	"	1450		S X X		4	
WEA-ER-1	WEA-MW-1		1510		W X		3	

1 Relinquished by (signature) <u>Sailek Mon Singh</u>	Date <u>2/10/03</u>	2 Received by (signature) <u>John P. Rame</u>	Date <u>2/10/03</u>	Total Number of Containers
Company <u>Winefield &amp; Associates</u>	Time <u>1600</u>	Company <u>JEL</u>	Time <u>1600</u>	
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof
Company	Time	Company	Time	



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JONES ENVIRONMENTAL

## LABORATORY REPORT

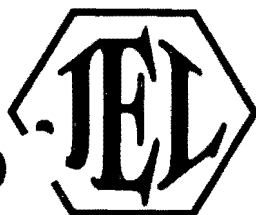
<b>Client:</b>	WINEFIELD & ASSOCIATES, INC.	<b>Report Date:</b>	02/17/03
<b>Client Address:</b>	110 Pine Ave., Suite 900 Long Beach, CA 90802	<b>JEL Ref. No.:</b>	C-0495
<b>Attn:</b>	Hector Garcia	<b>Date Sampled:</b>	02/11/03
<b>Project:</b>	Lynwood Springs	<b>Date Received:</b>	02/11/03
<b>Project Address:</b>	11600 S. Long Beach Blvd., Lynwood, CA	<b>Date Analyzed:</b>	02/12/03
		<b>Physical State:</b>	Soil/Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



# Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838  
(714) 449-9937 • FAX (714) 449-9685

## JONES ENVIRONMENTAL

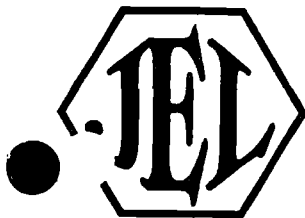
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;AMW3</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Benzene	ND	2.0	ug/Kg
Bromodichloromethane	ND	2.0	ug/Kg
Bromoform	ND	2.0	ug/Kg
Bromomethane	ND	2.0	ug/Kg
n-Butylbenzene	ND	2.0	ug/Kg
sec-Butylbenzene	ND	2.0	ug/Kg
tert-Butylbenzene	ND	2.0	ug/Kg
Carbon tetrachloride	ND	2.0	ug/Kg
Chlorobenzene	ND	2.0	ug/Kg
Chloroethane	ND	2.0	ug/Kg
Chloroform	ND	2.0	ug/Kg
Chloromethane	ND	2.0	ug/Kg
2-Chlorotoluene	ND	2.0	ug/Kg
4-Chlorotoluene	ND	2.0	ug/Kg
Dibromochloromethane	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	2.0	ug/Kg
Dibromomethane	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	2.0	ug/Kg

ND = Not Detected



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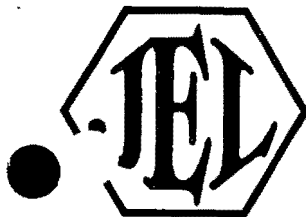
## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;AMW3</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
cis-1,2-Dichloroethene	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	2.0	ug/Kg
Ethylbenzene	ND	2.0	ug/Kg
Hexachlorobutadiene	ND	2.0	ug/Kg
Isopropylbenzene	ND	2.0	ug/Kg
4-Isopropyltoluene	ND	2.0	ug/Kg
Methylene chloride	ND	2.0	ug/Kg
Naphthalene	ND	2.0	ug/Kg
n-Propylbenzene	ND	2.0	ug/Kg
Styrene	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	2.0	ug/Kg
Tetrachloroethylene	ND	2.0	ug/Kg
Toluene	ND	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	2.0	ug/Kg
Trichloroethylene	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;AMW3</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Trichlorofluoromethane	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	ND	2.0	ug/Kg
1,3,5-Trimethylbenzene	ND	2.0	ug/Kg
Vinyl chloride	ND	2.0	ug/Kg
Xylenes	ND	2.0	ug/Kg
MTBE	ND	2.0	ug/Kg
Ethyl-tert-butylether	ND	2.0	ug/Kg
Di-isopropylether	ND	2.0	ug/Kg
tert-amylmethylether	ND	2.0	ug/Kg
tert-Butylalcohol	ND	2.0	ug/Kg

Dilution Factor 1

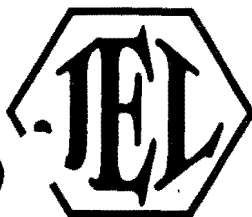
#### Surrogate Recovery :

Dibromofluoromethane	100%
Toluene-d <sub>8</sub>	107%
4-Bromofluorobenzene	92%

#### QC Limits

60 - 140
60 - 140
60 - 140

ND = Not Detected



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## QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

## EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: W&AMW3-25

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	101%	102%	1.9%	60 - 140
Chlorobenzene	96%	97%	1.3%	60 - 140
Toluene	100%	104%	3.7%	60 - 140
Trichloroethylene	92%	94%	2.2%	60 - 140
1,1-Dichloroethylene	94%	105%	11%	60 - 140

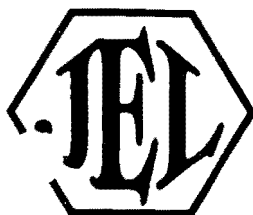
Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference





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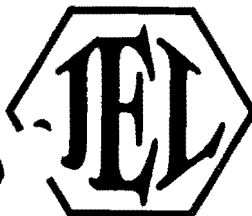
## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-ER-</u> <u>2</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Benzene	ND	0.5	ug/L
Bromodichloromethane	ND	0.5	ug/L
Bromoform	ND	0.5	ug/L
Bromomethane	ND	0.5	ug/L
n-Butylbenzene	ND	0.5	ug/L
sec-Butylbenzene	ND	0.5	ug/L
tert-Butylbenzene	ND	0.5	ug/L
Carbon tetrachloride	ND	0.5	ug/L
Chlorobenzene	ND	0.5	ug/L
Chloroethane	ND	0.5	ug/L
Chloroform	ND	0.5	ug/L
Chloromethane	ND	0.5	ug/L
2-Chlorotoluene	ND	0.5	ug/L
4-Chlorotoluene	ND	0.5	ug/L
Dibromochloromethane	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	0.5	ug/L
Dibromomethane	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	0.5	ug/L
Dichlorodifluoromethane	ND	0.5	ug/L
1,1-Dichloroethane	ND	0.5	ug/L
1,2-Dichloroethane	ND	0.5	ug/L
1,1-Dichloroethene	ND	0.5	ug/L

ND = Not Detected



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## JONES ENVIRONMENTAL

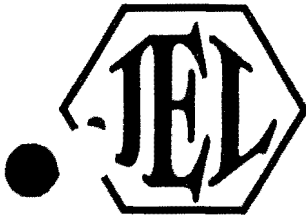
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-ER-</u> <u>2</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>			
cis-1,2-Dichloroethene	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	0.5	ug/L
1,2-Dichloropropane	ND	0.5	ug/L
1,3-Dichloropropane	ND	0.5	ug/L
2,2-Dichloropropane	ND	0.5	ug/L
1,1-Dichloropropene	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	0.5	ug/L
Ethylbenzene	ND	0.5	ug/L
Hexachlorobutadiene	ND	0.5	ug/L
Isopropylbenzene	ND	0.5	ug/L
4-Isopropyltoluene	ND	0.5	ug/L
Methylene chloride	ND	0.5	ug/L
Naphthalene	ND	0.5	ug/L
n-Propylbenzene	ND	0.5	ug/L
Styrene	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L
Tetrachloroethylene	ND	0.5	ug/L
Toluene	ND	0.5	ug/L
1,2,3-Trichlorobenzene	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	0.5	ug/L
Trichloroethylene	ND	0.5	ug/L

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-ER-</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
	<u>2</u>		
<b>Analytes:</b>			
Trichlorofluoromethane	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	0.5	ug/L
1,3,5-Trimethylbenzene	ND	0.5	ug/L
Vinyl chloride	ND	0.5	ug/L
Xylenes	ND	0.5	ug/L
MTBE	ND	0.5	ug/L
Ethyl-tert-butylether	ND	0.5	ug/L
Di-isopropylether	ND	0.5	ug/L
tert-amylmethylether	ND	0.5	ug/L
tert-Butylalcohol	ND	0.5	ug/L

Dilution Factor 1

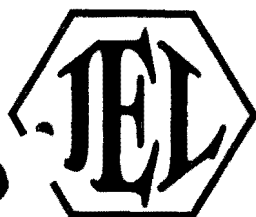
#### Surrogate Recovery :

Dibromofluoromethane	97%
Toluene-d <sub>8</sub>	106%
4-Bromofluorobenzene	92%

#### QC Limits

60 - 140
60 - 140
60 - 140

ND = Not Detected



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## JONES ENVIRONMENTAL

### QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	02/17/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0495
Attn:	Hector Garcia	Date Sampled:	02/11/03
		Date Received:	02/11/03
Project:	Lynwood Springs	Date Analyzed:	02/12/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: W&A-ER-2

Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)
Benzene	101%	98%	2.9%	60 - 140
Chlorobenzene	98%	101%	3.0%	60 - 140
Toluene	98%	105%	6.8%	60 - 140
Trichloroethylene	92%	96%	4.3%	60 - 140
1,1-Dichloroethylene	92%	97%	6.1%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference

# Chain-of-Custody Record

Client <i>Winfield &amp; Assoc.</i>	Date <i>2/11/03</i>
Project Name <i>Lynwood Springs</i>	Client Project #
Project Address <i>17500 S. Long Beach Blvd</i>	Turn Around Requested: <input checked="" type="checkbox"/> Immediate Attention <i>TEMP.</i> <input checked="" type="checkbox"/> Rush 24-48 Hours <i>8085 Samples</i> <input type="checkbox"/> Rush 72-96 Hours <input checked="" type="checkbox"/> Normal <i>All other</i> <input type="checkbox"/> Mobile Lab
<i>Lynwood CA</i>	
Project Contact <i>Mark Winfield</i>	

JEL Project #  
*10495*

Page *1* of *1*

Lab Use Only

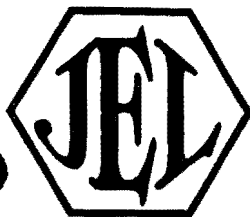
Sample Condition as Received.

Chilled ☐ yes ☐ no

Sealed ☐ yes ☐ no

Sample ID	Sample Location	Date	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A)	Analysis Requested	Number of Containers	Remarks/Special Instructions
<i>TEMPERATURE BLANK 2 - N/A</i>		<i>2/11/03</i>	<i>0730</i>	<i>W</i>	<i>X</i>		<i>1</i>	<i>5.6°C upon receipt</i>
<i>W&amp;A-MW-3-1</i>	<i>W&amp;A-MW-3</i>	<i>"</i>	<i>0840</i>	<i>5</i>	<i>X</i>		<i>1</i>	
<i>W&amp;A-MW-3-25</i>	<i>W&amp;A-MW-3</i>	<i>"</i>	<i>0920</i>	<i>3</i>	<i>X X</i>		<i>4</i>	<i>EPA-5035</i>
<i>W&amp;A-ER-2</i>	<i>W&amp;A-MW-3</i>	<i>"</i>	<i>0940</i>	<i>W</i>	<i>X X</i>		<i>4</i>	<i>EPA-5035</i>

1 Relinquished by (signature) <i>William Derolam</i>	Date <i>2/11/03</i>	2 Received by (signature) <i>[Signature]</i>	Date <i>2/11/03</i>	Total Number of Containers
Company <i>Winfield &amp; Assoc.</i>	Time <i>1545</i>	Company <i>JEL</i>	Time <i>1545</i>	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	
Company	Time	Company	Time	



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JONES ENVIRONMENTAL

## LABORATORY REPORT

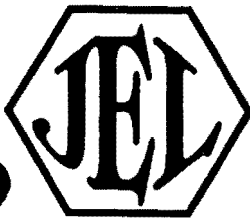
<b>Client:</b>	WINEFIELD & ASSOCIATES, INC.	<b>Report Date:</b>	03/07/03
<b>Client Address:</b>	110 Pine Ave., Suite 900 Long Beach, CA 90802	<b>JEL Ref. No.:</b>	B-3670
<b>Attn:</b>	Hector Garcia	<b>Date Sampled:</b>	03/03/03
<b>Project:</b>	Lynwood Springs	<b>Date Received:</b>	03/04/03
<b>Project Address:</b>	11600 S. Long Beach Blvd., Lynwood, CA	<b>Date Analyzed:</b>	03/04/03
		<b>Physical State:</b>	Soil/Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



# Jones Environmental, Inc.

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## JONES ENVIRONMENTAL

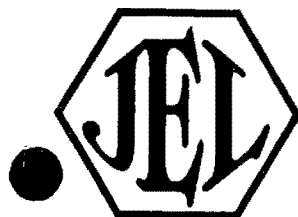
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

Sample ID:	<u>W &amp; A</u> <u>MW2-20.5</u>	<u>W &amp; A</u> <u>SB3-6'</u>	<u>W &amp; A</u> <u>SB3-11'</u>	<u>W &amp; A</u> <u>SB3-26'</u>	<u>W &amp; A</u> <u>SB4-11'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	180	130	53900	19	2.0	ug/Kg
Bromodichloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromoform	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
n-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
sec-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Carbon tetrachloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Chlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroform	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
2-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
4-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromochloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

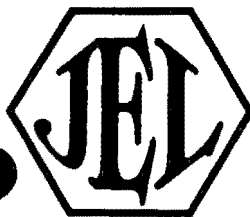
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>MW2-20.5</u>	<u>W &amp; A</u> <u>SB3-6'</u>	<u>W &amp; A</u> <u>SB3-11'</u>	<u>W &amp; A</u> <u>SB3-26'</u>	<u>W &amp; A</u> <u>SB4-11'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
Ethylbenzene	ND	39	ND	57700	2.0	2.0	ug/Kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	2.0	ug/Kg
Isopropylbenzene	ND	ND	ND	2300	ND	2.0	ug/Kg
4-Isopropyltoluene	ND	ND	ND	1400	ND	2.0	ug/Kg
Methylene chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Naphthalene	ND	36	ND	5100	ND	2.0	ug/Kg
n-Propylbenzene	ND	30	33	14300	ND	2.0	ug/Kg
Styrene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Tetrachloroethylene	ND	ND	ND	5800	490	2.0	ug/Kg
Toluene	ND	370	230	20800*	ND	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Trichloroethylene	ND	ND	ND	ND	46	2.0	ug/Kg

ND = Not Detected





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## JONES ENVIRONMENTAL

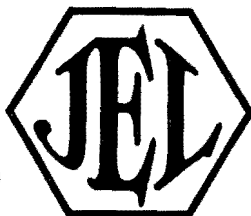
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>MW2-20.5</u>	<u>W &amp; A</u> <u>SB3-6'</u>	<u>W &amp; A</u> <u>SB3-11'</u>	<u>W &amp; A</u> <u>SB3-26'</u>	<u>W &amp; A</u> <u>SB4-11'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Trichlorofluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	ND	270	180	103000	ND	2.0	ug/Kg
1,3,5-Trimethylbenzene	ND	270	180	103000	ND	2.0	ug/Kg
Vinyl chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Xylenes	ND	460	190	187000	ND	2.0	ug/Kg
MTBE	ND	37000*	32300*	ND	ND	2.0	ug/Kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	2.0	ug/Kg
Di-isopropylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-amylmethylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-Butylalcohol	ND	ND	ND	ND	ND	2.0	ug/Kg
<b><u>Dilution Factor</u></b>	1	1	1/200*	400	1		
<b><u>Surrogate Recovery :</u></b>						<b><u>QC Limits</u></b>	
Dibromofluoromethane	107%	81%	79%	76%	84%	60 - 140	
Toluene-d <sub>8</sub>	105%	107%	106%	116%	107%	60 - 140	
4-Bromofluorobenzene	97%	98%	91%	97%	84%	60 - 140	

ND = Not Detected



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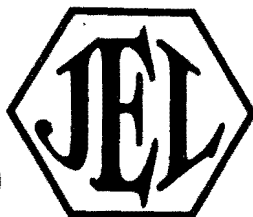
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>SB4-21'</u>	<u>W &amp; A</u> <u>SB4-26'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>				
Benzene	100	2300*	2.0	ug/Kg
Bromodichloromethane	ND	ND	2.0	ug/Kg
Bromoform	ND	ND	2.0	ug/Kg
Bromomethane	ND	ND	2.0	ug/Kg
n-Butylbenzene	ND	ND	2.0	ug/Kg
sec-Butylbenzene	ND	ND	2.0	ug/Kg
tert-Butylbenzene	ND	ND	2.0	ug/Kg
Carbon tetrachloride	ND	ND	2.0	ug/Kg
Chlorobenzene	ND	ND	2.0	ug/Kg
Chloroethane	ND	ND	2.0	ug/Kg
Chloroform	ND	ND	2.0	ug/Kg
Chloromethane	ND	ND	2.0	ug/Kg
2-Chlorotoluene	ND	ND	2.0	ug/Kg
4-Chlorotoluene	ND	ND	2.0	ug/Kg
Dibromochloromethane	ND	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	ND	2.0	ug/Kg
Dibromomethane	ND	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	ND	2.0	ug/Kg

ND = Not Detected



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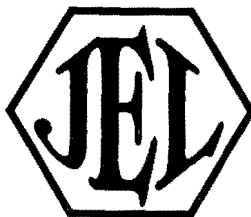
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>SB4-21'</u>	<u>W &amp; A</u> <u>SB4-26'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>				
cis-1,2-Dichloroethene	ND	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	ND	2.0	ug/Kg
Ethylbenzene	58	120	2.0	ug/Kg
Hexachlorobutadiene	ND	ND	2.0	ug/Kg
Isopropylbenzene	ND	ND	2.0	ug/Kg
4-Isopropyltoluene	ND	ND	2.0	ug/Kg
Methylene chloride	ND	ND	2.0	ug/Kg
Naphthalene	ND	17	2.0	ug/Kg
n-Propylbenzene	20	29	2.0	ug/Kg
Styrene	ND	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	ND	2.0	ug/Kg
Tetrachloroethylene	200	51	2.0	ug/Kg
Toluene	170	3000*	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	ND	2.0	ug/Kg
Trichloroethylene	35	13	2.0	ug/Kg

ND = Not Detected



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## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

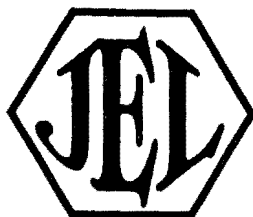
### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>SB4-21'</u>	<u>W &amp; A</u> <u>SB4-26'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>				
Trichlorofluoromethane	ND	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	43	180	2.0	ug/Kg
1,3,5-Trimethylbenzene	43	180	2.0	ug/Kg
Vinyl chloride	ND	ND	2.0	ug/Kg
Xylenes	120	810	2.0	ug/Kg
MTBE	ND	240	2.0	ug/Kg
Ethyl-tert-butylether	ND	ND	2.0	ug/Kg
Di-isopropylether	ND	ND	2.0	ug/Kg
tert-amylmethylether	ND	ND	2.0	ug/Kg
tert-Butylalcohol	ND	ND	2.0	ug/Kg
<b>Dilution Factor</b>	1	1/100*		

#### Surrogate Recovery :

			<u>QC Limits</u>
Dibromofluoromethane	85%	80%	60 - 140
Toluene-d <sub>8</sub>	104%	106%	60 - 140
4-Bromofluorobenzene	95%	96%	60 - 140

ND = Not Detected



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## JONES ENVIRONMENTAL

### QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3670
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: CLEAN SOIL

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	96%	95%	1.3%	60 - 140
Chlorobenzene	90%	89%	0.9%	60 - 140
Toluene	89%	95%	3.7%	60 - 140
Trichloroethylene	87%	87%	0.5%	60 - 140
1,1-Dichloroethylene	78%	73%	6.6%	60 - 140

Sample Spiked: CLEAN SOIL

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	87%	89%	2.2%	60 - 140
Chlorobenzene	86%	92%	7.4%	60 - 140
Toluene	91%	97%	5.9%	60 - 140
Trichloroethylene	97%	97%	0.1%	60 - 140
1,1-Dichloroethylene	88%	92%	4.5%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference

# Chain-of-Custody Record

Client <i>Winefield &amp; Assoc., Inc.</i>	Date <i>3/3/03</i>
Project Name <i>Lynwood Springs</i>	Client Project #
Project Address <i>11600 Long Beach Blvd</i>	Turn Around Requested: <input checked="" type="checkbox"/> Immediate Attention <input checked="" type="checkbox"/> Rush 24-48 Hours <input type="checkbox"/> Rush 72-96 Hours <input checked="" type="checkbox"/> Normal All other Analyses <input type="checkbox"/> Mobile Lab
<i>Lynwood</i>	
Project Contact <i>Matt Winefield</i>	

JEL Project #  
*153670*

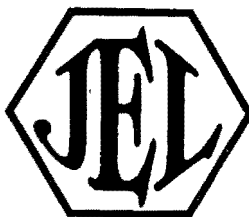
Page *1* of *1*

Lab Use Only

Sample Condition as Received:  
 Chilled ☒ yes ☐ no  
 Sealed ☒ yes ☐ no

Sample ID	Sample Location	Date	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A)	Analysis Requested	Number of Containers	Remarks/Special Instructions
<i>WEAMW2-20.5</i>	<i>WEA-MW-2</i>	<i>3/3/03</i>	<i>0835</i>		<i>S X X</i>		<i>4</i>	
<i>WEA-E3-1</i>	<i>WEA-SB-3</i>	<i>"</i>	<i>1235</i>		<i>S X</i>		<i>1</i>	
<i>WEA-E3-5</i>	<i>"</i>	<i>"</i>	<i>1315</i>		<i>S X X</i>		<i>4</i>	
<i>WEA-E3-11</i>	<i>"</i>	<i>"</i>	<i>1320</i>		<i>S X X</i>		<i>4</i>	
<i>WEA-E3-26</i>	<i>"</i>	<i>"</i>	<i>1350</i>		<i>S X X</i>		<i>4</i>	
<i>WEA-E4-11</i>	<i>WEA-SB-4</i>	<i>"</i>	<i>1540</i>		<i>S X</i>		<i>3</i>	
<i>WEA-E4-21</i>	<i>"</i>		<i>1610</i>		<i>S X X</i>		<i>4</i>	
<i>WEA-E4-26</i>	<i>"</i>		<i>1610</i>		<i>S X</i>		<i>3</i>	
<i>Temperature Blank</i>	<i>N/A</i>	<i>3/3/03</i>	<i>0600</i>		<i>N</i>	<i>X</i>	<i>1</i>	<i>27°C</i>

1 Relinquished by (signature) <i>[Signature]</i>	Date <i>3/4/03</i>	2 Received by (signature) <i>[Signature]</i>	Date <i>3/4/03</i>	Total Number of Containers
Company <i>NMWW, Inc.</i>	Time <i>1335</i>	Company <i>JEL</i>	Time <i>1335</i>	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
3 Relinquished by (signature)	Date	4 Received by Laboratory (signature)	Date	
Company	Time	Company	Time	



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JONES ENVIRONMENTAL

## LABORATORY REPORT

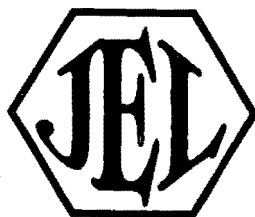
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
Project:	Lynwood Springs	Date Received:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Date Analyzed:	03/04/03
		Physical State:	Soil/Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



# Jones Environmental, Inc.

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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

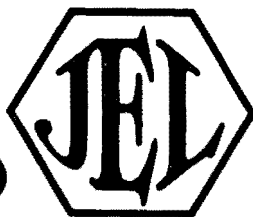
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>SB2-6.5</u>	<u>W &amp; A</u> <u>SB2-11.5'</u>	<u>W &amp; A</u> <u>SB2-26.5'</u>	<u>W &amp; A</u> <u>SB2-26.5D</u>	<u>W &amp; A</u> <u>HVW2-</u> <u>22'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	120	74000	41000	27000	2.0	ug/Kg
Bromodichloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromoform	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
n-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
sec-Butylbenzene	ND	ND	ND	ND	320	2.0	ug/Kg
tert-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Carbon tetrachloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Chlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroform	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
2-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
4-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromochloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg

ND = Not Detected





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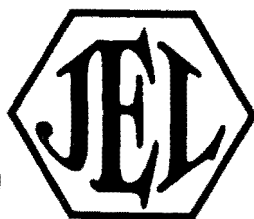
## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>SB2-6.5</u>	<u>W &amp; A</u> <u>SB2-11.5'</u>	<u>W &amp; A</u> <u>SB2-26.5'</u>	<u>W &amp; A</u> <u>SB2-26.5D</u>	<u>W &amp; A</u> <u>HVW2-22'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
Ethylbenzene	ND	ND	11300	60000	13000	2.0	ug/Kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	2.0	ug/Kg
Isopropylbenzene	ND	ND	1700J	ND	2500	2.0	ug/Kg
4-Isopropyltoluene	ND	ND	ND	ND	1500	2.0	ug/Kg
Methylene chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Naphthalene	ND	ND	16000	7100	6700	2.0	ug/Kg
n-Propylbenzene	ND	13	35000	22000	11500	2.0	ug/Kg
Styrene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Tetrachloroethylene	6.6	36	104000	53900	ND	2.0	ug/Kg
Toluene	ND	2.0	443000	245000	357000*	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Trichloroethylene	ND	7.5	ND	ND	ND	2.0	ug/Kg

ND = Not Detected



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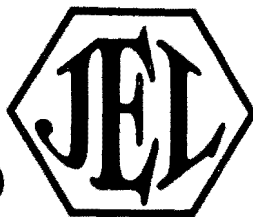
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>SB2-6.5</u>	<u>W &amp; A</u> <u>SB2-11.5'</u>	<u>W &amp; A</u> <u>SB2-26.5'</u>	<u>W &amp; A</u> <u>SB2-26.5D</u>	<u>W &amp; A</u> <u>HVW2-22'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Trichlorofluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	ND	25	240000	136000	189000*	2.0	ug/Kg
1,3,5-Trimethylbenzene	ND	25	240000	136000	189000*	2.0	ug/Kg
Vinyl chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Xylenes	ND	93	404000	227000	330000*	2.0	ug/Kg
MTBE	ND	4600*	307000	240000	445000*	2.0	ug/Kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	2.0	ug/Kg
Di-isopropylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-amylmethylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-Butylalcohol	ND	ND	ND	ND	ND	2.0	ug/Kg
<b>Dilution Factor</b>	1	1/100*	1000	1000	200/1000*		
<b>Surrogate Recovery :</b>						<b>QC Limits</b>	
Dibromofluoromethane	105%	80%	82%	82%	70%	60 - 140	
Toluene-d <sub>8</sub>	101%	106%	116%	110%	118%	60 - 140	
4-Bromofluorobenzene	99%	97%	97%	99%	101%	60 - 140	

ND = Not Detected



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### QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: CLEAN SOIL

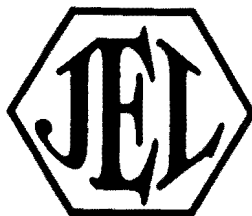
<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	87%	89%	2.2%	60 - 140
Chlorobenzene	86%	92%	7.4%	60 - 140
Toluene	91%	97%	5.9%	60 - 140
Trichloroethylene	97%	97%	0.1%	60 - 140
1,1-Dichloroethylene	88%	92%	4.5%	60 - 140

Sample Spiked: CLEAN SOIL

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	96%	95%	1.3%	60 - 140
Chlorobenzene	90%	89%	0.9%	60 - 140
Toluene	89%	85%	3.7%	60 - 140
Trichloroethylene	87%	87%	0.5%	60 - 140
1,1-Dichloroethylene	78%	73%	6.6%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference



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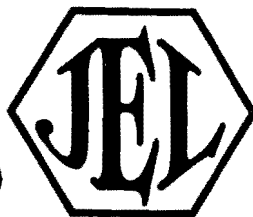
## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A- ER-3</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Benzene	ND	0.5	ug/L
Bromodichloromethane	ND	0.5	ug/L
Bromoform	ND	0.5	ug/L
Bromomethane	ND	0.5	ug/L
n-Butylbenzene	ND	0.5	ug/L
sec-Butylbenzene	ND	0.5	ug/L
tert-Butylbenzene	ND	0.5	ug/L
Carbon tetrachloride	ND	0.5	ug/L
Chlorobenzene	ND	0.5	ug/L
Chloroethane	ND	0.5	ug/L
Chloroform	ND	0.5	ug/L
Chloromethane	ND	0.5	ug/L
2-Chlorotoluene	ND	0.5	ug/L
4-Chlorotoluene	ND	0.5	ug/L
Dibromochloromethane	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	0.5	ug/L
Dibromomethane	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	0.5	ug/L
Dichlorodifluoromethane	ND	0.5	ug/L
1,1-Dichloroethane	ND	0.5	ug/L
1,2-Dichloroethane	ND	0.5	ug/L
1,1-Dichloroethene	ND	0.5	ug/L

ND = Not Detected



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## JONES ENVIRONMENTAL

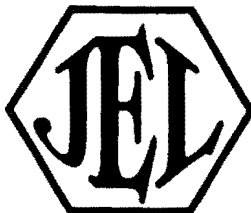
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A- ER-3</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
cis-1,2-Dichloroethene	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	0.5	ug/L
1,2-Dichloropropane	ND	0.5	ug/L
1,3-Dichloropropane	ND	0.5	ug/L
2,2-Dichloropropane	ND	0.5	ug/L
1,1-Dichloropropene	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	0.5	ug/L
Ethylbenzene	ND	0.5	ug/L
Hexachlorobutadiene	ND	0.5	ug/L
Isopropylbenzene	ND	0.5	ug/L
4-Isopropyltoluene	ND	0.5	ug/L
Methylene chloride	ND	0.5	ug/L
Naphthalene	ND	0.5	ug/L
n-Propylbenzene	ND	0.5	ug/L
Styrene	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L
Tetrachloroethylene	ND	0.5	ug/L
Toluene	ND	0.5	ug/L
1,2,3-Trichlorobenzene	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	0.5	ug/L
Trichloroethylene	ND	0.5	ug/L

ND = Not Detected



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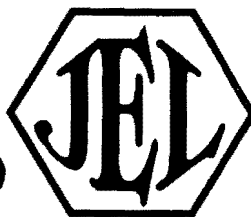
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A-</u> <u>ER-3</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Trichlorofluoromethane	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	0.5	ug/L
1,3,5-Trimethylbenzene	ND	0.5	ug/L
Vinyl chloride	ND	0.5	ug/L
Xylenes	ND	0.5	ug/L
MTBE	ND	0.5	ug/L
Ethyl-tert-butylether	ND	0.5	ug/L
Di-isopropylether	ND	0.5	ug/L
tert-amylmethylether	ND	0.5	ug/L
tert-Butylalcohol	ND	0.5	ug/L
<u>Dilution Factor</u>	1		
<b><u>Surrogate Recovery :</u></b>			
Dibromofluoromethane	103%	<u>QC Limits</u> 60 - 140	
Toluene-d <sub>8</sub>	103%	60 - 140	
4-Bromofluorobenzene	100%	60 - 140	

ND = Not Detected



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## JONES ENVIRONMENTAL

### QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/07/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3671
Attn:	Hector Garcia	Date Sampled:	03/03/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/04/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: EQUIPMENT BLANK

Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)
Benzene	97%	88%	9.4%	60 - 140
Chlorobenzene	107%	106%	0.1%	60 - 140
Toluene	100%	99%	1.2%	60 - 140
Trichloroethylene	101%	105%	3.6%	60 - 140
1,1-Dichloroethylene	86%	86%	0.0%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference

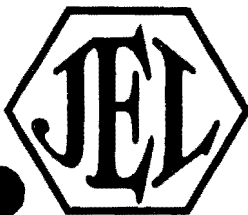
# Chain-of-Custody Record

<b>Client</b> Winefield & Associates	<b>Date</b> 3/3/03	<b>JEL Project #</b> 183671
<b>Project Name</b> Lynwood Springs	<b>Client Project #</b> WAI-007	<b>Page</b> 1 <b>of</b> 1
<b>Project Address</b> 11600 Long Beach Blvd. Lynwood, CA	<b>Turn Around Requested:</b> <input checked="" type="checkbox"/> Immediate Attention temp. <input checked="" type="checkbox"/> Rush 24-48 Hours 82608 <input type="checkbox"/> Rush 72-96 Hours <input type="checkbox"/> Normal <input type="checkbox"/> Mobile Lab	<b>Lab Use Only</b> Sample Condition as Received. Chilled <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Sealed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
<b>Project Contact</b> Bill Green 310/578-6788		

Sample ID	Sample Location	Date	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A)	Analysis Requested	Number of Containers	Remarks/Special Instructions
WEASB2-2.5	WEA-SB-2	3/3/03	1120	183671-1	S	X	1	
WEASB2-6.5	"		1135	183671-2	S	X	3	
WEASB2-11.5	"		1140	183671-3	S	X	3	
WEASB2-26	"		1210	183671-4	S	X	1	
WEASB2-26.5	"		1210	183671-5	S	X	3	
WEASB2-26.5D	"		1210	183671-6	S	X	3	
WEASB2-36	"		1240	183671-7	S		1	HOLD
WEASB2-36.5	"		1240	183671-8	S		3	HOLD
WEAHVW2-22	WEA-HVW-2		1510	183671-9	S	X	3	
WEA-ER-3	WEA-HVW-2		1600	183671-10	W	X X X	5	

<b>1 Relinquished by (signature)</b> 	<b>Date</b> 3/4/03	<b>2 Received by (signature)</b> 	<b>Date</b> 3/4/03	Total Number of Containers  The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
<b>Company</b> NMMWA, Inc.	<b>Time</b> 1:35	<b>Company</b> JEL	<b>Time</b> 1:35	
<b>3 Relinquished by (signature)</b> 	<b>Date</b> 	<b>4 Received by Laboratory (signature)</b> 	<b>Date</b> 	
<b>Company</b> 	<b>Time</b> 	<b>Company</b> 	<b>Time</b> 	





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JONES ENVIRONMENTAL

## LABORATORY REPORT

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03  
Date Received: 03/04/03

Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

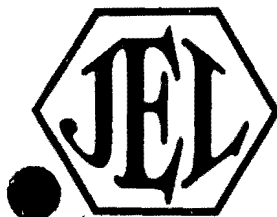
Date Analyzed: 03/06/03 & 03/09/03  
Physical State: Soil/Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



# Jones Environmental, Inc.

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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03  
Date Received: 03/04/03

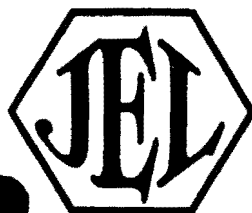
Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Date Analyzed: 03/06/03  
Physical State: Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

Sample ID:	W & A BS1- 5.5'	W & A SB1- 10.5'	W & A SB1- 20.5'	W & A SB1- 25.5'	W & A SB1- 25.5D	Practical Quantitation Limits	Units
Analytes:							
Benzene	ND	ND	12000	20000	15000	2.0	ug/Kg
Bromodichloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromoform	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
n-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
sec-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Carbon tetrachloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Chlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroform	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
2-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
4-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromochloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg

ND = Not Detected



# Jones Environmental, Inc.

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## JONES ENVIRONMENTAL

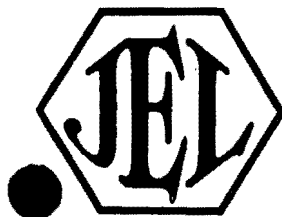
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/11/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3679
Attn:	Hector Garcia	Date Sampled:	03/04/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/06/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

Sample ID:	W & A	W & A	W & A	W & A	W & A	Practical	Units
	BS1-	SB1-	SB1-	SB1-	SB1-	Quantitation	
	5.5'	10.5'	20.5'	25.5'	25.5D	Limits	
Analytes:							
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
Ethylbenzene	ND	ND	6000	22000	16000	2.0	ug/Kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	2.0	ug/Kg
Isopropylbenzene	ND	ND	240	ND	ND	2.0	ug/Kg
4-Isopropyltoluene	ND	ND	76	ND	ND	2.0	ug/Kg
Methylene chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Naphthalene	ND	ND	ND	2200	890	2.0	ug/Kg
n-Propylbenzene	ND	ND	20000	26000	18000	2.0	ug/Kg
Styrene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Tetrachloroethylene	44	13	ND	ND	ND	2.0	ug/Kg
Toluene	ND	ND	54000	94000	72000	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Trichloroethylene	ND	ND	ND	ND	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

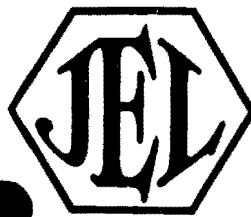
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/11/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3679
Attn:	Hector Garcia	Date Sampled:	03/04/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/06/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>BS1-</u> <u>5.5'</u>	<u>W &amp; A</u> <u>SB1-</u> <u>10.5'</u>	<u>W &amp; A</u> <u>SB1-</u> <u>20.5'</u>	<u>W &amp; A</u> <u>SB1-</u> <u>25.5'</u>	<u>W &amp; A</u> <u>SB1-</u> <u>25.5D</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Trichlorofluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	ND	ND	52500	71800	79900	2.0	ug/Kg
1,3,5-Trimethylbenzene	ND	ND	20900	33600	38700	2.0	ug/Kg
Vinyl chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Xylenes	ND	ND	25000	55000	44000	2.0	ug/Kg
MTBE	ND	110	620000	540000	540000	2.0	ug/Kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	2.0	ug/Kg
Di-isopropylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-amylmethylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-Butylalcohol	ND	ND	ND	ND	ND	2.0	ug/Kg
<b>Dilution Factor</b>	1	50	410	520	360		
<b>Surrogate Recovery :</b>						<b>QC Limits</b>	
Dibromofluoromethane	101%	103%	85%	119%	131%	60 - 140	
Toluene-d <sub>8</sub>	97%	99%	102%	86%	87%	60 - 140	
4-Bromofluorobenzene	95%	99%	89%	82%	82%	60 - 140	

ND = Not Detected



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JONES ENVIRONMENTAL

## LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03  
Date Received: 03/04/03

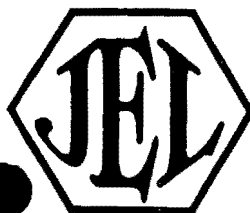
Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Date Analyzed: 03/06/03  
Physical State: Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>HVW1-</u> <u>6'</u>	<u>W &amp; A</u> <u>HVW1-</u> <u>11'</u>	<u>W &amp; A</u> <u>HVW1-</u> <u>23'</u>	<u>W &amp; A</u> <u>HVW3-</u> <u>6'</u>	<u>W &amp; A</u> <u>HVW3-</u> <u>11'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	16000	16000	150000	73000	3900	2.0	ug/Kg
Bromodichloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromoform	ND	ND	ND	ND	ND	2.0	ug/Kg
Bromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
n-Butylbenzene	ND	ND	ND	3500	ND	2.0	ug/Kg
sec-Butylbenzene	810	ND	6100	5100	ND	2.0	ug/Kg
tert-Butylbenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Carbon tetrachloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Chlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Chloroform	130	ND	9100	ND	ND	2.0	ug/Kg
Chloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
2-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
4-Chlorotoluene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromochloromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	2.0	ug/Kg
Dibromomethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03

Date Received: 03/04/03

Project: Lynwood Springs

Date Analyzed: 03/06/03

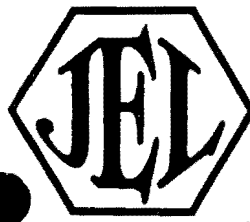
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Physical State: Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

Sample ID:	W & A HVW1- 6'	W & A HVW1- 11'	W & A HVW1- 23'	W & A HVW3- 6'	W & A HVW3- 11'	Practical Quantitation Limits	Units
<b>Analytes:</b>							
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	2.0	ug/Kg
Ethylbenzene	46000	43000	200000	33000	ND	2.0	ug/Kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	2.0	ug/Kg
Isopropylbenzene	3500	1600	23000	13000	ND	2.0	ug/Kg
4-Isopropyltoluene	2300	ND	13000	11000	ND	2.0	ug/Kg
Methylene chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Naphthalene	ND	10000	ND	ND	5600	2.0	ug/Kg
n-Propylbenzene	13000	12000	200000	170000	1600	2.0	ug/Kg
Styrene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	7900	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Tetrachloroethylene	ND	ND	ND	ND	ND	2.0	ug/Kg
Toluene	180000	90000	1000000	240000	11000	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	2.0	ug/Kg
Trichloroethylene	ND	ND	ND	ND	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
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Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03  
Date Received: 03/04/03

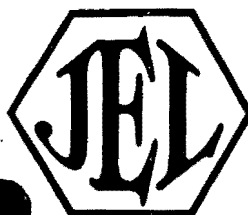
Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Date Analyzed: 03/06/03  
Physical State: Soil

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A</u> <u>HVW1-</u> <u>6'</u>	<u>W &amp; A</u> <u>HVW1-</u> <u>11'</u>	<u>W &amp; A</u> <u>HVW1-</u> <u>23'</u>	<u>W &amp; A</u> <u>HVW3-</u> <u>6'</u>	<u>W &amp; A</u> <u>HVW3-</u> <u>11'</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Trichlorofluoromethane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	228000	244000	828000	590000	63000	2.0	ug/Kg
1,3,5-Trimethylbenzene	413000	220000	391000	244000	30400	2.0	ug/Kg
Vinyl chloride	ND	ND	ND	ND	ND	2.0	ug/Kg
Xylenes	250000	150000	680000	150000	7100	2.0	ug/Kg
MTBE	720000	1800000	3400000	410000	850000	2.0	ug/Kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	2.0	ug/Kg
Di-isopropylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-amylmethylether	ND	ND	ND	ND	ND	2.0	ug/Kg
tert-Butylalcohol	ND	ND	ND	ND	ND	2.0	ug/Kg
<b>Dilution Factor</b>	370	4300	3900	3600	2000		
<b>Surrogate Recovery :</b>						<b>QC Limits</b>	
Dibromofluoromethane	98%	134%	118%	139%	126%	60 - 140	
Toluene-d <sub>8</sub>	87%	85%	87%	92%	84%	60 - 140	
4-Bromofluorobenzene	86%	83%	83%	82%	81%	60 - 140	

ND = Not Detected



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JONES ENVIRONMENTAL

## LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03  
Date Received: 03/04/03

Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

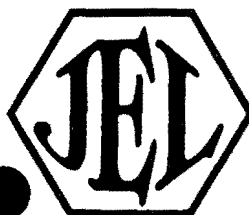
Date Analyzed: 03/06/03  
Physical State: Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A HVW3- 22.5'</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Benzene	110000	2.0	ug/Kg
Bromodichloromethane	ND	2.0	ug/Kg
Bromoform	ND	2.0	ug/Kg
Bromomethane	ND	2.0	ug/Kg
n-Butylbenzene	ND	2.0	ug/Kg
sec-Butylbenzene	3600	2.0	ug/Kg
tert-Butylbenzene	ND	2.0	ug/Kg
Carbon tetrachloride	ND	2.0	ug/Kg
Chlorobenzene	ND	2.0	ug/Kg
Chloroethane	ND	2.0	ug/Kg
Chloroform	5000	2.0	ug/Kg
Chloromethane	ND	2.0	ug/Kg
2-Chlorotoluene	ND	2.0	ug/Kg
4-Chlorotoluene	ND	2.0	ug/Kg
Dibromochloromethane	ND	2.0	ug/Kg
1,2-Dibromo-3-chloropropane	ND	2.0	ug/Kg
1,2-Dibromoethane (EDB)	ND	2.0	ug/Kg
Dibromomethane	ND	2.0	ug/Kg
1,2-Dichlorobenzene	ND	2.0	ug/Kg
1,3-Dichlorobenzene	ND	2.0	ug/Kg
1,4-Dichlorobenzene	ND	2.0	ug/Kg
Dichlorodifluoromethane	ND	2.0	ug/Kg
1,1-Dichloroethane	ND	2.0	ug/Kg
1,2-Dichloroethane	ND	2.0	ug/Kg
1,1-Dichloroethene	ND	2.0	ug/Kg

ND = Not Detected





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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03

Date Received: 03/04/03

Project: Lynwood Springs

Date Analyzed: 03/06/03

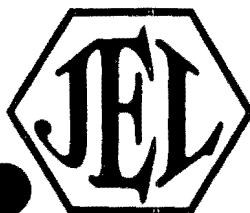
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Physical State: Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A HVW3- 22.5'</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
cis-1,2-Dichloroethene	ND	2.0	ug/Kg
trans-1,2-Dichloroethene	ND	2.0	ug/Kg
1,2-Dichloropropane	ND	2.0	ug/Kg
1,3-Dichloropropane	ND	2.0	ug/Kg
2,2-Dichloropropane	ND	2.0	ug/Kg
1,1-Dichloropropene	ND	2.0	ug/Kg
cis-1,3-Dichloropropene	ND	2.0	ug/Kg
trans-1,3-Dichloropropene	ND	2.0	ug/Kg
Ethylbenzene	90000	2.0	ug/Kg
Hexachlorobutadiene	ND	2.0	ug/Kg
Isopropylbenzene	12000	2.0	ug/Kg
4-Isopropyltoluene	8600	2.0	ug/Kg
Methylene chloride	ND	2.0	ug/Kg
Naphthalene	75000	2.0	ug/Kg
n-Propylbenzene	46000	2.0	ug/Kg
Styrene	ND	2.0	ug/Kg
1,1,1,2-Tetrachloroethane	ND	2.0	ug/Kg
1,1,2,2-Tetrachloroethane	ND	2.0	ug/Kg
Tetrachloroethylene	ND	2.0	ug/Kg
Toluene	430000	2.0	ug/Kg
1,2,3-Trichlorobenzene	ND	2.0	ug/Kg
1,2,4-Trichlorobenzene	ND	2.0	ug/Kg
1,1,1-Trichloroethane	ND	2.0	ug/Kg
1,1,2-Trichloroethane	ND	2.0	ug/Kg
Trichloroethylene	ND	2.0	ug/Kg

ND = Not Detected



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## JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
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Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03

Date Received: 03/04/03

Project: Lynwood Springs

Date Analyzed: 03/06/03

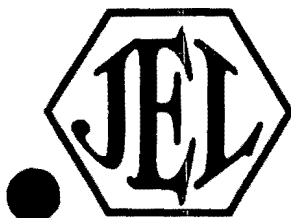
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Physical State: Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A HVW3- 22.5'</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Trichlorofluoromethane	ND	2.0	ug/Kg
1,2,3-Trichloropropane	ND	2.0	ug/Kg
1,2,4-Trimethylbenzene	75500	2.0	ug/Kg
1,3,5-Trimethylbenzene	117000	2.0	ug/Kg
Vinyl chloride	ND	2.0	ug/Kg
Xylenes	270000	2.0	ug/Kg
MTBE	2300000	2.0	ug/Kg
Ethyl-tert-butylether	ND	2.0	ug/Kg
Di-isopropylether	ND	2.0	ug/Kg
tert-amylmethylether	ND	2.0	ug/Kg
tert-Butylalcohol	ND	2.0	ug/Kg
<b><u>Dilution Factor</u></b>	2000		
<b><u>Surrogate Recovery :</u></b>		<b><u>QC Limits</u></b>	
Dibromofluoromethane	127%	60 - 140	
Toluene-d <sub>8</sub>	85%	60 - 140	
4-Bromofluorobenzene	82%	60 - 140	

ND = Not Detected



# Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838  
(714) 449-9937 • FAX (714) 449-9685

## JONES ENVIRONMENTAL

### QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/11/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3679
Attn:	Hector Garcia	Date Sampled:	03/04/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/06/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Soil

### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: CLEAN SOIL

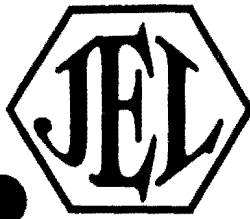
<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	106%	108%	1.5%	60 - 140
Chlorobenzene	90%	95%	2.6%	60 - 140
Toluene	93%	92%	0.9%	60 - 140
Trichloroethylene	89%	91%	2.1%	60 - 140
1,1-Dichloroethylene	90%	90%	0.5%	60 - 140

Sample Spiked: CLEAN SOIL

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	61%	65%	7.0%	60 - 140
Chlorobenzene	83%	83%	0.8%	60 - 140
Toluene	76%	77%	0.8%	60 - 140
Trichloroethylene	78%	81%	4.1%	60 - 140
1,1-Dichloroethylene	70%	81%	14%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference



# Jones Environmental, Inc.

Testing Laboratories

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JONES ENVIRONMENTAL

## LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/11/03  
JEL Ref. No.: B-3679

Attn: Hector Garcia

Date Sampled: 03/04/03

Project: Lynwood Springs

Date Received: 03/04/03

Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

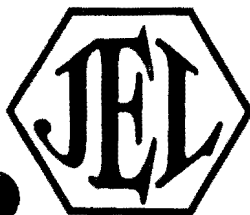
Date Analyzed: 03/09/03

Physical State: Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A- ER-4</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Benzene	ND	0.5	ug/L
Bromodichloromethane	ND	0.5	ug/L
Bromoform	ND	0.5	ug/L
Bromomethane	ND	0.5	ug/L
n-Butylbenzene	ND	0.5	ug/L
sec-Butylbenzene	ND	0.5	ug/L
tert-Butylbenzene	ND	0.5	ug/L
Carbon tetrachloride	ND	0.5	ug/L
Chlorobenzene	ND	0.5	ug/L
Chloroethane	ND	0.5	ug/L
Chloroform	ND	0.5	ug/L
Chloromethane	ND	0.5	ug/L
2-Chlorotoluene	ND	0.5	ug/L
4-Chlorotoluene	ND	0.5	ug/L
Dibromochloromethane	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	0.5	ug/L
Dibromomethane	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	0.5	ug/L
Dichlorodifluoromethane	ND	0.5	ug/L
1,1-Dichloroethane	ND	0.5	ug/L
1,2-Dichloroethane	ND	0.5	ug/L
1,1-Dichloroethene	ND	0.5	ug/L

ND = Not Detected



# Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838  
(714) 449-9937 • FAX (714) 449-9685

## JONES ENVIRONMENTAL

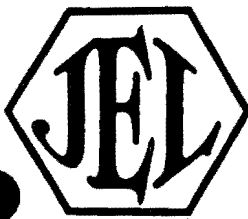
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/11/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3679
Attn:	Hector Garcia	Date Sampled:	03/04/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/09/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A- ER-4</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
cis-1,2-Dichloroethene	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	0.5	ug/L
1,2-Dichloropropane	ND	0.5	ug/L
1,3-Dichloropropane	ND	0.5	ug/L
2,2-Dichloropropane	ND	0.5	ug/L
1,1-Dichloropropene	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	0.5	ug/L
Ethylbenzene	ND	0.5	ug/L
Hexachlorobutadiene	ND	0.5	ug/L
Isopropylbenzene	ND	0.5	ug/L
4-Isopropyltoluene	ND	0.5	ug/L
Methylene chloride	ND	0.5	ug/L
Naphthalene	ND	0.5	ug/L
n-Propylbenzene	ND	0.5	ug/L
Styrene	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L
Tetrachloroethylene	ND	0.5	ug/L
Toluene	ND	0.5	ug/L
1,2,3-Trichlorobenzene	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	0.5	ug/L
Trichloroethylene	ND	0.5	ug/L

ND = Not Detected



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## JONES ENVIRONMENTAL

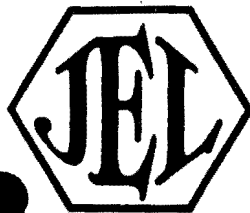
### LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/11/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	B-3679
Attn:	Hector Garcia	Date Sampled:	03/04/03
		Date Received:	03/04/03
Project:	Lynwood Springs	Date Analyzed:	03/09/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W &amp; A- ER-4</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>			
Trichlorofluoromethane	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	0.5	ug/L
1,3,5-Trimethylbenzene	ND	0.5	ug/L
Vinyl chloride	ND	0.5	ug/L
Xylenes	ND	0.5	ug/L
MTBE	ND	0.5	ug/L
Ethyl-tert-butylether	ND	0.5	ug/L
Di-isopropylether	ND	0.5	ug/L
tert-amylmethylether	ND	0.5	ug/L
tert-Butylalcohol	ND	0.5	ug/L
<u>Dilution Factor</u>	1		
<b><u>Surrogate Recovery :</u></b>		<b><u>QC Limits</u></b>	
Dibromofluoromethane	93%	60 - 140	
Toluene-d <sub>8</sub>	100%	60 - 140	
4-Bromofluorobenzene	95%	60 - 140	

ND = Not Detected



# Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838  
(714) 449-9937 • FAX (714) 449-9685

## JONES ENVIRONMENTAL

### QUALITY CONTROL INFORMATION

<b>Client:</b>	WINEFIELD & ASSOCIATES, INC.	<b>Report Date:</b>	03/11/03
<b>Client Address:</b>	110 Pine Ave., Suite 900 Long Beach, CA 90802	<b>JEL Ref. No.:</b>	B-3679
<b>Attn:</b>	Hector Garcia	<b>Date Sampled:</b>	03/04/03
		<b>Date Received:</b>	03/04/03
<b>Project:</b>	Lynwood Springs	<b>Date Analyzed:</b>	03/09/03
<b>Project Address:</b>	11600 S. Long Beach Blvd., Lynwood, CA	<b>Physical State:</b>	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: DISTILLED WATER

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	99%	106%	%	60 - 140
Chlorobenzene	82%	84%	%	60 - 140
Toluene	82%	82%	%	60 - 140
Trichloroethylene	81%	82%	%	60 - 140
1,1-Dichloroethylene	81%	81%	%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference

**WORLD OIL CORP.**

9302 South Garfield Avenue

South Gate, CA 90280-3096

Phone (562) 928-0100 Fax (562) 928-0391

Jones

**CHAIN OF CUSTODY**

Analytical Laboratory: Jones

Lab Project: B 3679

DATE: 3/4/03

Pg 1 of 2

SITE/STATION #:

SITE/STATION ADDRESS: 11600 Long Beach Blvd.

CONSULTANT: Wingfield &amp; Associates

PHONE: (310) 578-6788

ADDRESS:

FAX: (310) 578-9688

PROJECT MGR. Bill Girolamo

SAMPLER NAME: Sheila Morrissey

PROJECT # WAI-007

PROJECT NAME: Lynwood Springs

TAT: ☐ 24Hr ☒ 48Hr ☐ 72Hr☒ Normal (5000) ☒ Other (immediate-temp.)SHIPPED VIA: ☐ Walk In ☐ Courier☐ Fed Ex☒ Other (pick up)

NUMBER OF CONTAINERS

**ANALYSES REQUESTED**

Temperature

8260 B

8270C

6010B (Lead only)

SAMPLE ID	MATRIX	DATE	TIME	LAB ID													REMARKS
Temperature Blank 5	Water	3/4/03	0730		1	X											
WEASB1-1	Soil		0810		1				X								
WEASB1-6			0825		1				X								
WEASB1-5.5			0825		3		X										
WEASB1-11			0835		1			X									
WEASB1-10.5			0835		3		X										
WEASB1-20.5			0925		3		X										HOLD
WEASB1-25.5			0940		4		X	X									Run duplicate on 8270C
WEASB1-25.5D			0940		3		X										
<del>WEASB1-30.5</del>			<del>0955</del>														
WEAHVW1-2	Soil	3/4/03	1140		1				X								
WEAHVW1-6			1200		7		X	X									MS/MSD (6 encores included)
WEAHVW1-11			1215		4		X	X									
WEAHVW1-23			1240		4		X	X									
WEAHVW3-2.5			H55		1				X								

1) RELINQUISHED BY:

Printed Name: Sheila K. Morrissey

Signature: Sheila K. Morrissey

Date/Time: 3/5/03 0600

2) RELINQUISHED BY:

Printed Name: STUART JONES

Signature: Stuart Jones

Date/Time: 3/5/03 7:30

3) RELINQUISHED BY:

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date/Time: \_\_\_\_\_

1) RECEIVED BY:

Printed Name: STUART JONES

Signature: Stuart Jones

Date/Time: 3/5/03 7:30

2) RECEIVED BY:

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date/Time: \_\_\_\_\_

3) RECEIVED BY:

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date/Time: \_\_\_\_\_







18 March 2003

Hector Garcia  
Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach, CA 90802

RE:Lynwood Springs

Work Order No.: 0303078

Attached are the results of the analyses for samples received by the laboratory on 03/07/03 09:45.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.  
If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth  
Laboratory Director



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: **WAJ-007 / B3670 + B3671**  
Project Manager: **Hector Garcia**

Reported:  
03/18/03 15:15

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W&A MW2-20.5'	0303078-01	Soil	03/03/03 08:35	03/07/03 09:45
W&A SB3-1'	0303078-02	Soil	03/03/03 12:35	03/07/03 09:45
W&A SB3-6'	0303078-03	Soil	03/03/03 13:45	03/07/03 09:45
W&A SB3-11'	0303078-04	Soil	03/03/03 13:20	03/07/03 09:45
W&A SB3-26'	0303078-05	Soil	03/03/03 13:50	03/07/03 09:45
W&A SB4-21'	0303078-06	Soil	03/03/03 15:55	03/07/03 09:45
W&A SB2-2.5'	0303078-07	Soil	03/03/03 11:20	03/07/03 09:45
W&A SB2-26'	0303078-08	Soil	03/03/03 12:10	03/07/03 09:45
W&A ER-3	0303078-09	Liquid	03/03/03 16:00	03/07/03 09:45

03/07/03- Sierra Sample # 0303078-09- Not enough H2O sample to analyze for 8270. Client was notified but never returned sample receiving's message. BRD.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:15

**Metals by EPA 6000/7000 Series Methods**  
**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A MW2-20.5' (0303078-01) Soil Sampled: 03/03/03 08:35 Received: 03/07/03 09:45									
Lead	3.5	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A SB3-1' (0303078-02) Soil Sampled: 03/03/03 12:35 Received: 03/07/03 09:45									
Lead	11	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A SB3-26' (0303078-05) Soil Sampled: 03/03/03 13:50 Received: 03/07/03 09:45									
Lead	ND	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A SB4-21' (0303078-06) Soil Sampled: 03/03/03 15:55 Received: 03/07/03 09:45									
Lead	3.4	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A SB2-2.5' (0303078-07) Soil Sampled: 03/03/03 11:20 Received: 03/07/03 09:45									
Lead	4.1	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A SB2-26' (0303078-08) Soil Sampled: 03/03/03 12:10 Received: 03/07/03 09:45									
Lead	ND	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A ER-3 (0303078-09) Liquid Sampled: 03/03/03 16:00 Received: 03/07/03 09:45									
Lead	ND	0.020	mg/L	1	B3C1405	03/14/03	03/14/03	EPA 6010B	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:51

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A SB3-6' (0303078-03) Soil Sampled: 03/03/03 13:45 Received: 03/07/03 09:45</b>									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety*



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:51

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A SB3-6' (0303078-03) Soil Sampled: 03/03/03 13:45 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		30.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		110 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		30.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		110 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		50.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		50.0 %	18-137		"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:51

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A SB3-11' (0303078-04) Soil    Sampled: 03/03/03 13:20    Received: 03/07/03 09:45									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:51

**Semivolatile Organic Compounds by EPA Method 8270C**  
**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A SB3-11' (0303078-04) Soil Sampled: 03/03/03 13:20 Received: 03/07/03 09:45</b>									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		40.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		82.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		31.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		66.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		41.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		55.0 %	18-137		"	"	"	"	

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110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:15

**Metals by EPA 6000/7000 Series Methods - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3C1326 - EPA 3050B</b>										
<b>Blank (B3C1326-BLK1)</b>				Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	ND	2.8	mg/kg							
<b>LCS (B3C1326-BS1)</b>				Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	107	2.8	mg/kg	100		107	80-120			
<b>Matrix Spike (B3C1326-MS1)</b>				Source: 0303078-01 Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	97.1	2.8	mg/kg	91.0	3.5	103	70-130			
<b>Matrix Spike Dup (B3C1326-MSD1)</b>				Source: 0303078-01 Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	105	2.8	mg/kg	95.0	3.5	107	70-130	7.82	20	
<b>Batch B3C1405 - EPA 3010A</b>										
<b>Blank (B3C1405-BLK1)</b>				Prepared & Analyzed: 03/14/03						
Lead	ND	0.020	mg/L							
<b>LCS (B3C1405-BS1)</b>				Prepared & Analyzed: 03/14/03						
Lead	0.191	0.020	mg/L	0.200		95.5	80-120			
<b>Matrix Spike (B3C1405-MS1)</b>				Source: 0303078-09 Prepared & Analyzed: 03/14/03						
Lead	0.195	0.020	mg/L	0.200	ND	97.5	75-125			
<b>Matrix Spike Dup (B3C1405-MSD1)</b>				Source: 0303078-09 Prepared & Analyzed: 03/14/03						
Lead	0.194	0.020	mg/L	0.200	ND	97.0	75-125	0.514	20	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:15

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1110 - EPA 3550B Solid Ext**

**Blank (B3C1110-BLK1)**

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	ND	1.0	mg/kg
Acenaphthylene	ND	1.0	"
Anthracene	ND	1.0	"
Benzidine	ND	1.0	"
Benzo (a) anthracene	ND	1.0	"
Benzo (b) fluoranthene	ND	1.0	"
Benzo (k) fluoranthene	ND	1.0	"
Benzo (a) pyrene	ND	1.0	"
Benzo (g,h,i) perylene	ND	1.0	"
Benzyl alcohol	ND	1.0	"
Bis(2-chloroethyl)ether	ND	1.0	"
Bis(2-chloroethoxy)methane	ND	1.0	"
Bis(2-ethylhexyl)phthalate	ND	1.0	"
Bis(2-chloroisopropyl)ether	ND	1.0	"
Bromophenyl phenyl ether	ND	1.0	"
Butyl benzyl phthalate	ND	1.0	"
4-Chloroaniline	ND	1.0	"
2-Chlorophenol	ND	1.0	"
4-Chloro-3-methylphenol	ND	1.0	"
2-Chloronaphthalene	ND	1.0	"
4-Chlorophenyl phenyl ether	ND	1.0	"
Chrysene	ND	1.0	"
Dibenz (a,b) anthracene	ND	1.0	"
Dibenzofuran	ND	1.0	"
1,3-Dichlorobenzene	ND	1.0	"
1,2-Dichlorobenzene	ND	1.0	"
1,4-Dichlorobenzene	ND	1.0	"
3,3'-Dichlorobenzidine	ND	1.0	"
2,4-Dichlorophenol	ND	1.0	"
Diethyl phthalate	ND	1.0	"
2,4-Dimethylphenol	ND	1.0	"
Dimethyl phthalate	ND	1.0	"
Di-n-butyl phthalate	ND	1.0	"
2,4-Dinitrophenol	ND	1.0	"
4,6-Dinitro-2-methylphenol	ND	1.0	"
2,4-Dinitrotoluene	ND	1.0	"
2,6-Dinitrotoluene	ND	1.0	"

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110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:15

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1110 - EPA 3550B Solid Ext**

**Blank (B3C1110-BLK1)**

Prepared: 03/10/03 Analyzed: 03/11/03

Di-n-octyl phthalate	ND	1.0	mg/kg
1,2-Diphenylhydrazine	ND	1.0	"
Fluoranthene	ND	1.0	"
Fluorene	ND	1.0	"
Hexachlorobenzene	ND	1.0	"
Hexachlorobutadiene	ND	1.0	"
Hexachlorocyclopentadiene	ND	1.0	"
Hexachloroethane	ND	1.0	"
Indeno (1,2,3-cd) pyrene	ND	1.0	"
Isophorone	ND	1.0	"
2-Methylnaphthalene	ND	1.0	"
2-Methylphenol	ND	1.0	"
4-Methylphenol	ND	1.0	"
Naphthalene	ND	1.0	"
1-Nitroaniline	ND	1.0	"
3-Nitroaniline	ND	1.0	"
4-Nitroaniline	ND	1.0	"
Nitrobenzene	ND	1.0	"
2-Nitrophenol	ND	1.0	"
4-Nitrophenol	ND	1.0	"
N-Nitrosodimethylamine	ND	1.0	"
N-Nitrosodiphenylamine	ND	1.0	"
N-Nitrosodi-n-propylamine	ND	1.0	"
Pentachlorophenol	ND	1.0	"
Phenanthrene	ND	1.0	"
Phenol	ND	1.0	"
Pyrene	ND	1.0	"
1,2,4-Trichlorobenzene	ND	1.0	"
2,4,5-Trichlorophenol	ND	1.0	"
2,4,6-Trichlorophenol	ND	1.0	"

Surrogate: 2-Fluorophenol	0.870	"	1.00	87.0	25-121
Surrogate: Phenol-d6	0.750	"	1.00	75.0	24-113
Surrogate: Nitrobenzene-d5	0.900	"	1.00	90.0	23-120
Surrogate: 2-Fluorobiphenyl	0.900	"	1.00	90.0	30-115
Surrogate: 2,4,6-Tribromophenol	0.800	"	1.00	80.0	19-122
Surrogate: Terphenyl-d14	0.700	"	1.00	70.0	18-137

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110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:15

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1110 - EPA 3550B Solid Ext**

**LCS (B3C1110-BS1)**

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	1.40	1.0	mg/kg	2.00		70.0	47-145			
2-Chlorophenol	2.30	1.0	"	2.00		115	23-134			
4-Chloro-3-methylphenol	1.30	1.0	"	1.50		86.7	22-147			
1,4-Dichlorobenzene	0.800	1.0	"	1.00		80.0	20-124			
2,4-Dinitrotoluene	1.10	1.0	"	1.00		110	39-139			
4-Nitrophenol	ND	1.0	"	1.00			0-132			
N-Nitrosodi-n-propylamine	ND	1.0	"	1.00			0-230			
Pentachlorophenol	1.60	1.0	"	1.00		160	14-176			
Phenol	1.80	1.0	"	2.00		90.0	5-112			
Pyrene	2.10	1.0	"	2.00		105	52-115			
1,2,4-Trichlorobenzene	1.10	1.0	"	1.00		110	44-142			

**Matrix Spike (B3C1110-MS1)**

Source: 0303078-03

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	1.20	1.0	mg/kg	2.00	ND	60.0	47-145			
2-Chlorophenol	2.00	1.0	"	2.00	ND	100	23-134			
4-Chloro-3-methylphenol	1.50	1.0	"	1.50	ND	100	22-147			
1,4-Dichlorobenzene	0.600	1.0	"	1.00	ND	60.0	20-124			
2,4-Dinitrotoluene	0.800	1.0	"	1.00	ND	80.0	39-139			
4-Nitrophenol	ND	1.0	"	1.00	ND		0-132			
N-Nitrosodi-n-propylamine	ND	1.0	"	1.00	ND		0-230			
Pentachlorophenol	1.60	1.0	"	1.00	ND	160	14-176			
Phenol	2.10	1.0	"	2.00	ND	105	5-112			
Pyrene	1.70	1.0	"	2.00	ND	85.0	52-115			
1,2,4-Trichlorobenzene	1.00	1.0	"	1.00	ND	100	44-142			

**Matrix Spike Dup (B3C1110-MSD1)**

Source: 0303078-03

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	1.10	1.0	mg/kg	2.00	ND	55.0	47-145	8.70	30	
2-Chlorophenol	1.80	1.0	"	2.00	ND	90.0	23-134	10.5	30	
4-Chloro-3-methylphenol	1.40	1.0	"	1.50	ND	93.3	22-147	6.90	30	
1,4-Dichlorobenzene	0.500	1.0	"	1.00	ND	50.0	20-124	18.2	30	
2,4-Dinitrotoluene	1.00	1.0	"	1.00	ND	100	39-139	22.2	30	
4-Nitrophenol	ND	1.0	"	1.00	ND		0-132		30	
N-Nitrosodi-n-propylamine	ND	1.0	"	1.00	ND		0-230		30	
Pentachlorophenol	1.60	1.0	"	1.00	ND	160	14-176	0.00	30	
Phenol	1.80	1.0	"	2.00	ND	90.0	5-112	15.4	30	
Pyrene	1.90	1.0	"	2.00	ND	95.0	52-115	11.1	30	
1,2,4-Trichlorobenzene	0.900	1.0	"	1.00	ND	90.0	44-142	10.5	30	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007 / B3670 + B3671  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:15

#### Notes and Definitions

DET      Analyte DETECTED  
ND      Analyte NOT DETECTED at or above the reporting limit  
NR      Not Reported  
dry      Sample results reported on a dry weight basis  
RPD      Relative Percent Difference

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26052 MERIT CIRCLE SUITE 105, LAGUNA HILLS, CALIFORNIA 92653  
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## SIERRA ANALYTICAL

TEL: 949•348•9389

FAX: 949•348•9115

26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

## CHAIN OF CUSTODY RECORD

Date: 3/06/03 Page 1 of 1Lab Project ID 0303 078

Client <u>Winfield &amp; Assoc</u>		Client Project ID <u>WAI-007 B3671</u>		Analyses Requested																					
Client Address <u>110 Pine Ave. Suite 900</u> <u>Laguna Beach, CA 90802</u>		Turn Around Time Requested: <input type="checkbox"/> Immediate <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 4 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> Normal <input type="checkbox"/> Mobile		<u>EPA 60.10 B-Lowlevel</u> <u>EPA 82.70C</u>																					
Client Tel No: <u>562 495-5777</u>																									
Client Fax No: <u>562-495-5877</u>																									
Client Proj Mgr.: <u>Nector Garcia</u>																									
Client Sample ID.	Sierra Sample No.	Date/Time	Matrix	Preservatives	Container Type	No. of Containers	Comments																		
<u>WFA MW2-20.5'</u>	<u>01</u>	<u>3/3/03 8:35</u>	<u>Soil</u>			<u>1</u>	<u>X</u>																		
<u>WFA SB3-1'</u>	<u>02</u>	<u>3/3/03-12:35</u>	<u>Soil</u>			<u>1</u>	<u>X</u>																		
<u>WFA SB3-6'</u>	<u>03</u>	<u>11/15</u>				<u>1</u>	<u>X</u>																		
<u>WFA SB3-11'</u>	<u>04</u>	<u>11/30</u>				<u>1</u>	<u>X</u>																		
<u>WFA SB3-26'</u>	<u>05</u>	<u>1/3/03</u>				<u>1</u>	<u>X</u>																		
<u>WFA SB4-21'</u>	<u>06</u>	<u>1/5/03</u>				<u>1</u>	<u>X</u>																		
<u>WFA SB2-2.5'</u>	<u>07</u>	<u>11/30</u>				<u>1</u>	<u>X</u>																		
<u>WFA SB2-26'</u>	<u>08</u>	<u>12/10</u>				<u>1</u>	<u>X</u>																		
<u>WFA-ER-3</u>	<u>09</u>	<u>1/6/03</u>	<u>Water</u>			<u>2</u>	<u>X</u>																		
1. Sampler Signature		Shipped Via		Total Number of Containers Submitted to Laboratory		The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA'S Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT. * Samples determined to be hazardous by SIERRA will be returned to CLIENT.						Sample Disposal:													
Printed Name		(Carrier/Vendor Bill No.)		Total Number of Containers Received by Laboratory								<input type="checkbox"/> Return to Client													
2. Relinquished By <u>Karen Prume</u>		Date <u>3-7-03</u>		Received By <u>[Signature]</u>								Date <u>3-7-03</u>		<input type="checkbox"/> Lab Disposal											
Company <u>JEL</u>		Time <u>9:45</u>		Company <u>Sierra</u>								Time <u>9:45</u>		<input type="checkbox"/> Archive _____ mos											
3. Relinquished By		Date		Received By		Date		4. Relinquished By		Date		Received By		Date											
Company		Time		Company		Time		Company		Time		Company		Time											
Special Instructions														FOR LABORATORY USE ONLY - Sample Receipt Conditions:											
														<input checked="" type="checkbox"/> Intact						<input type="checkbox"/> Chilled - Temp (°C) <u>2.8°C</u>					
														<input type="checkbox"/> Sample Seals						<input type="checkbox"/> Preservatives - Verified By _____					
														<input checked="" type="checkbox"/> Properly Labeled						<input type="checkbox"/> Other _____					
														<input checked="" type="checkbox"/> Appropriate Sample Container						<input checked="" type="checkbox"/> Storage Location <u>B46 + R1E1</u>					



18 March 2003

Hector Garcia  
Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach, CA 90802  
RE:Lynwood Springs  
Work Order No.: 0303079

Attached are the results of the analyses for samples received by the laboratory on 03/07/03 09:45.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.  
If you require any additional retaining time, please advise us.

Sincerely,

---

Richard K. Forsyth  
Laboratory Director



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:25

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W&A SB1-1	0303079-01	Soil	03/04/03 08:10	03/07/03 09:45
W&A SB1-6	0303079-02	Soil	03/04/03 08:25	03/07/03 09:45
W&A SB1-11	0303079-03	Soil	03/04/03 08:35	03/07/03 09:45
W&A SB1-25.5	0303079-04	Soil	03/04/03 09:40	03/07/03 09:45
W&A HVW1-2	0303079-05	Soil	03/04/03 11:40	03/07/03 09:45
W&A HVW1-6	0303079-06	Soil	03/04/03 12:00	03/07/03 09:45
W&A HVW1-11	0303079-07	Soil	03/04/03 12:15	03/07/03 09:45
W&A HVW1-23	0303079-08	Soil	03/04/03 12:40	03/07/03 09:45
W&A HVW3-2.5	0303079-09	Soil	03/04/03 14:55	03/07/03 09:45
W&A HVW3-6	0303079-10	Soil	03/04/03 15:05	03/07/03 09:45
W&A HVW3-11	0303079-11	Soil	03/04/03 15:30	03/07/03 09:45
W&A ER-4	0303079-12	Liquid	03/04/03 13:00	03/07/03 09:45

03/07/03- Sierra Sample # 0303079-12- Not enough H2O sample to analyze for 8270. Client was notified but never returned sample receiving's message. BRD.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety*





Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:25

**Metals by EPA 6000/7000 Series Methods**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
W&A SB1-1 (0303079-01) Soil Sampled: 03/04/03 08:10 Received: 03/07/03 09:45									
Lead	13	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A HVW1-2 (0303079-05) Soil Sampled: 03/04/03 11:40 Received: 03/07/03 09:45									
Lead	24	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A HVW3-2.5 (0303079-09) Soil Sampled: 03/04/03 14:55 Received: 03/07/03 09:45									
Lead	ND	2.8	mg/kg	1	B3C1326	03/13/03	03/17/03	EPA 6010B	
W&A ER-4 (0303079-12) Liquid Sampled: 03/04/03 13:00 Received: 03/07/03 09:45									
Lead	ND	0.020	mg/L	1	B3C1405	03/14/03	03/14/03	EPA 6010B	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A SB1-6 (0303079-02) Soil Sampled: 03/04/03 08:25 Received: 03/07/03 09:45</b>									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A SB1-6 (0303079-02) Soil Sampled: 03/04/03 08:25 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		30.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		100 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		30.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		40.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		100 %	18-137		"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A SBI-11 (0303079-03) Soil Sampled: 03/04/03 08:35 Received: 03/07/03 09:45</b>									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A SBI-11 (0303079-03) Soil Sampled: 03/04/03 08:35 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		30.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		25.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		25.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		89.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		46.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		87.0 %	18-137		"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A SB1-25.5 (0303079-04) Soil    Sampled: 03/04/03 09:40    Received: 03/07/03 09:45</b>									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benazidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A SB1-25.5 (0303079-04) Soil Sampled: 03/04/03 09:40 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	6.1	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		32.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		86.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		62.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		104 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		82.0 %	18-137		"	"	"	"	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
W&A HVW1-6 (0303079-06) Soil    Sampled: 03/04/03 12:00    Received: 03/07/03 09:45										
Acenaphthene	ND	0.20	mg/kg	1		B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	"	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HWV1-6 (0303079-06) Soil Sampled: 03/04/03 12:00 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	10	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	0.66	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		50.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		47.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		76.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		37.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		30.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		31.0 %	18-137		"	"	"	"	

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Project Manager: Hector Garcia

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04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HWY1-11 (0303079-07) Soil Sampled: 03/04/03 12:15 Received: 03/07/03 09:45									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HWY1-11 (0303079-07) Soil Sampled: 03/04/03 12:15 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	5.2	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	3.1	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		42.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		88.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		43.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		72.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		81.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		54.0 %	18-137		"	"	"	"	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HW1-23 (0303079-08) Soil    Sampled: 03/04/03 12:40    Received: 03/07/03 09:45									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HVW1-23 (0303079-08) Soil Sampled: 03/04/03 12:40 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		30.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		90.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		30.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		40.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		30.0 %	18-137		"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HVW3-6 (0303079-10) Soil Sampled: 03/04/03 15:05 Received: 03/07/03 09:45									
Acenaphthene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A HVW3-6 (0303079-10) Soil Sampled: 03/04/03 15:05 Received: 03/07/03 09:45</b>									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	24	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		44.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		99.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		70.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		96.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		55.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		94.0 %	18-137		"	"	"	"	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

**Semivolatle Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
W&A HWV3-11 (0303079-11) Soil    Sampled: 03/04/03 15:30    Received: 03/07/03 09:45										
Acenaphthene	ND	0.20	mg/kg	1		B3C1110	03/10/03	03/11/03	EPA 8270C	
Acenaphthylene	ND	0.20	"	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	"	
Benzidine	ND	0.20	"	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	"	

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110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
04/22/03 15:54

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W&A HVW3-11 (0303079-11) Soil Sampled: 03/04/03 15:30 Received: 03/07/03 09:45									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C1110	03/10/03	03/11/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		30.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		109 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		31.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		68.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		44.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		44.0 %	18-137		"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:25

**Metals by EPA 6000/7000 Series Methods - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3C1326 - EPA 3050B</b>										
<b>Blank (B3C1326-BLK1)</b>				Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	ND	2.8	mg/kg							
<b>LCS (B3C1326-BS1)</b>				Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	107	2.8	mg/kg	100		107	80-120			
<b>Matrix Spike (B3C1326-MS1)</b>				Source: 0303078-01 Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	97.1	2.8	mg/kg	91.0	3.5	103	70-130			
<b>Matrix Spike Dup (B3C1326-MSD1)</b>				Source: 0303078-01 Prepared: 03/13/03 Analyzed: 03/17/03						
Lead	105	2.8	mg/kg	95.0	3.5	107	70-130	7.82	20	
<b>Batch B3C1405 - EPA 3010A</b>										
<b>Blank (B3C1405-BLK1)</b>				Prepared & Analyzed: 03/14/03						
Lead	ND	0.020	mg/L							
<b>LCS (B3C1405-BS1)</b>				Prepared & Analyzed: 03/14/03						
Lead	0.191	0.020	mg/L	0.200		95.5	80-120			
<b>Matrix Spike (B3C1405-MS1)</b>				Source: 0303078-09 Prepared & Analyzed: 03/14/03						
Lead	0.195	0.020	mg/L	0.200	ND	97.5	75-125			
<b>Matrix Spike Dup (B3C1405-MSD1)</b>				Source: 0303078-09 Prepared & Analyzed: 03/14/03						
Lead	0.194	0.020	mg/L	0.200	ND	97.0	75-125	0.514	20	

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Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:25

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1110 - EPA 3550B Solid Ext**

**Blank (B3C1110-BLK1)**

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	ND	1.0	mg/kg
Acenaphthylene	ND	1.0	"
Anthracene	ND	1.0	"
Benzidine	ND	1.0	"
Benzo (a) anthracene	ND	1.0	"
Benzo (b) fluoranthene	ND	1.0	"
Benzo (k) fluoranthene	ND	1.0	"
Benzo (a) pyrene	ND	1.0	"
Benzo (g,h,i) perylene	ND	1.0	"
Benzyl alcohol	ND	1.0	"
Bis(2-chloroethyl)ether	ND	1.0	"
Bis(2-chloroethoxy)methane	ND	1.0	"
Bis(2-ethylhexyl)phthalate	ND	1.0	"
Bis(2-chloroisopropyl)ether	ND	1.0	"
4-Bromophenyl phenyl ether	ND	1.0	"
Butyl benzyl phthalate	ND	1.0	"
4-Chloroaniline	ND	1.0	"
2-Chlorophenol	ND	1.0	"
4-Chloro-3-methylphenol	ND	1.0	"
2-Chloronaphthalene	ND	1.0	"
4-Chlorophenyl phenyl ether	ND	1.0	"
Chrysene	ND	1.0	"
Dibenz (a,h) anthracene	ND	1.0	"
Dibenzofuran	ND	1.0	"
1,3-Dichlorobenzene	ND	1.0	"
1,2-Dichlorobenzene	ND	1.0	"
1,4-Dichlorobenzene	ND	1.0	"
3,3'-Dichlorobenzidine	ND	1.0	"
2,4-Dichlorophenol	ND	1.0	"
Diethyl phthalate	ND	1.0	"
2,4-Dimethylphenol	ND	1.0	"
Dimethyl phthalate	ND	1.0	"
Di-n-butyl phthalate	ND	1.0	"
2,4-Dinitrophenol	ND	1.0	"
4,6-Dinitro-2-methylphenol	ND	1.0	"
2,4-Dinitrotoluene	ND	1.0	"
2,6-Dinitrotoluene	ND	1.0	"

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Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:25

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3C1110 - EPA 3550B Solid Ext</b>										
<b>Blank (B3C1110-BLK1)</b>				Prepared: 03/10/03 Analyzed: 03/11/03						
Di-n-octyl phthalate	ND	1.0	mg/kg							
1,2-Diphenylhydrazine	ND	1.0	"							
Fluoranthene	ND	1.0	"							
Fluorene	ND	1.0	"							
Hexachlorobenzene	ND	1.0	"							
Hexachlorobutadiene	ND	1.0	"							
Hexachlorocyclopentadiene	ND	1.0	"							
Hexachloroethane	ND	1.0	"							
Indeno (1,2,3-cd) pyrene	ND	1.0	"							
Isophorone	ND	1.0	"							
2-Methylnaphthalene	ND	1.0	"							
2-Methylphenol	ND	1.0	"							
4-Methylphenol	ND	1.0	"							
Naphthalene	ND	1.0	"							
2-Nitroaniline	ND	1.0	"							
3-Nitroaniline	ND	1.0	"							
4-Nitroaniline	ND	1.0	"							
Nitrobenzene	ND	1.0	"							
2-Nitrophenol	ND	1.0	"							
4-Nitrophenol	ND	1.0	"							
N-Nitrosodimethylamine	ND	1.0	"							
N-Nitrosodiphenylamine	ND	1.0	"							
N-Nitrosodi-n-propylamine	ND	1.0	"							
Pentachlorophenol	ND	1.0	"							
Phenanthrene	ND	1.0	"							
Phenol	ND	1.0	"							
Pyrene	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
2,4,5-Trichlorophenol	ND	1.0	"							
2,4,6-Trichlorophenol	ND	1.0	"							
Surrogate: 2-Fluorophenol	0.870		"	1.00		87.0	25-121			
Surrogate: Phenol-d6	0.750		"	1.00		75.0	24-113			
Surrogate: Nitrobenzene-d5	0.900		"	1.00		90.0	23-120			
Surrogate: 2-Fluorobiphenyl	0.900		"	1.00		90.0	30-115			
Surrogate: 2,4,6-Tribromophenol	0.800		"	1.00		80.0	19-122			
Surrogate: Terphenyl-d14	0.700		"	1.00		70.0	18-137			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Hector Garcia

Reported:  
03/18/03 15:25

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1110 - EPA 3550B Solid Ext**

**LCS (B3C1110-BS1)**

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	1.40	1.0	mg/kg	2.00		70.0	47-145			
2-Chlorophenol	2.30	1.0	"	2.00		115	23-134			
4-Chloro-3-methylphenol	1.30	1.0	"	1.50		86.7	22-147			
1,4-Dichlorobenzene	0.800	1.0	"	1.00		80.0	20-124			
2,4-Dinitrotoluene	1.10	1.0	"	1.00		110	39-139			
4-Nitrophenol	ND	1.0	"	1.00			0-132			
N-Nitrosodi-n-propylamine	ND	1.0	"	1.00			0-230			
Pentachlorophenol	1.60	1.0	"	1.00		160	14-176			
Phenol	1.80	1.0	"	2.00		90.0	5-112			
Pyrene	2.10	1.0	"	2.00		105	52-115			
1,2,4-Trichlorobenzene	1.10	1.0	"	1.00		110	44-142			

**Matrix Spike (B3C1110-MS1)**

Source: 0303078-03

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	1.20	1.0	mg/kg	2.00	ND	60.0	47-145			
2-Chlorophenol	2.00	1.0	"	2.00	ND	100	23-134			
4-Chloro-3-methylphenol	1.50	1.0	"	1.50	ND	100	22-147			
1,4-Dichlorobenzene	0.600	1.0	"	1.00	ND	60.0	20-124			
2,4-Dinitrotoluene	0.800	1.0	"	1.00	ND	80.0	39-139			
4-Nitrophenol	ND	1.0	"	1.00	ND		0-132			
N-Nitrosodi-n-propylamine	ND	1.0	"	1.00	ND		0-230			
Pentachlorophenol	1.60	1.0	"	1.00	ND	160	14-176			
Phenol	2.10	1.0	"	2.00	ND	105	5-112			
Pyrene	1.70	1.0	"	2.00	ND	85.0	52-115			
1,2,4-Trichlorobenzene	1.00	1.0	"	1.00	ND	100	44-142			

**Matrix Spike Dup (B3C1110-MSD1)**

Source: 0303078-03

Prepared: 03/10/03 Analyzed: 03/11/03

Acenaphthene	1.10	1.0	mg/kg	2.00	ND	55.0	47-145	8.70	30	
2-Chlorophenol	1.80	1.0	"	2.00	ND	90.0	23-134	10.5	30	
4-Chloro-3-methylphenol	1.40	1.0	"	1.50	ND	93.3	22-147	6.90	30	
1,4-Dichlorobenzene	0.500	1.0	"	1.00	ND	50.0	20-124	18.2	30	
2,4-Dinitrotoluene	1.00	1.0	"	1.00	ND	100	39-139	22.2	30	
4-Nitrophenol	ND	1.0	"	1.00	ND		0-132		30	
N-Nitrosodi-n-propylamine	ND	1.0	"	1.00	ND		0-230		30	
Pentachlorophenol	1.60	1.0	"	1.00	ND	160	14-176	0.00	30	
Phenol	1.80	1.0	"	2.00	ND	90.0	5-112	15.4	30	
Pyrene	1.90	1.0	"	2.00	ND	95.0	52-115	11.1	30	
1,2,4-Trichlorobenzene	0.900	1.0	"	1.00	ND	90.0	44-142	10.5	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: **WAI-007**  
Project Manager: **Hector Garcia**

Reported:  
03/18/03 15:25

#### Notes and Definitions

DET      Analyte DETECTED  
ND      Analyte NOT DETECTED at or above the reporting limit  
NR      Not Reported  
dry      Sample results reported on a dry weight basis  
RPD      Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



SIERRA ANALYTICAL

TEL: 949•348•9389

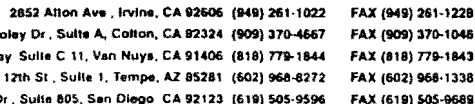
FAX: 949•348•9115

26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

## CHAIN OF CUSTODY RECORD

Date: 3/6/03 Page 1 of 2Lab Project ID: 0303079

Client: <u>Windsor + Assoc</u>		Client Project ID: <u>Gymnast Springs</u>		Analyses Requested												
Client Address: <u>110 Pine Ave., Suite 900</u>		WAI-07														
<u>Long Beach, CA 90802</u>																
Client Tel No: <u>(562) 495-5777</u>																
Client Fax No: <u>(562) 495-5877</u>																
Client Proj Mgr: <u>Nector Duncan</u>																
Turn Around Time Requested:		<input type="checkbox"/> Immediate <input type="checkbox"/> 24 Hour														
		<input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour														
		<input type="checkbox"/> 4 Day <input type="checkbox"/> 5 Day														
		<input type="checkbox"/> Normal <input type="checkbox"/> Mobile														
Client Sample ID	Sierra Sample No.	Date/Time	Matrix	Preservatives	Container Type	No. of Containers	Comments									
WEASB1-1	01	3/4/03 0810	S		Brass	1										
WEASB1-6	02	0825	S			1										
WEASB1-11	03	0835	S			1										
WEASB1-255	04	0940	S			1										
WEAHVW1-2	05	1140	S			1										
WEAHVW1-6	06	1200	S			1										
WEAHVW1-11	07	1215	S			1										
WEAHVW1-23	08	1240	S			1										
WEAHVW3-2.5	09	1455	S			1										
WEAHVW3-6	10	1505	S			1										
1. Sampler Signature		Shipped Via:		Total Number of Containers Submitted to Laboratory		Sample Disposal:										
Printed Name		(Carrier/Weight No.)				<input type="checkbox"/> Return to Client										
2. Relinquished By		Date	Received By	Date	The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions unless otherwise agreed upon in writing between SIERRA and CLIENT											
Company		Time	Company	Time	* - Samples determined to be hazardous by SIERRA will be returned to CLIENT											
3. Relinquished By		Date	Received By	Date	Total Number of Containers Received by Laboratory											
Company		Time	Company	Time												
4. Relinquished By		Date	Received By	Date	FOR LABORATORY USE ONLY - Sample Receipt Conditions:											
Company		Time	Company	Time	<input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Chilled - Temp (°C) <u>2.8°C</u>											
Special Instructions						<input type="checkbox"/> Sample Seals <input type="checkbox"/> Preservatives - Verified By										
						<input checked="" type="checkbox"/> Properly Labeled <input type="checkbox"/> Other										
						<input checked="" type="checkbox"/> Appropriate Sample Container <input checked="" type="checkbox"/> Storage Location <u>B45 / R1A1</u>										

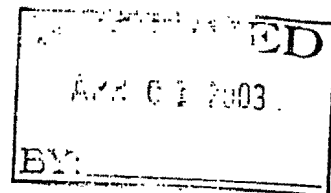


CHAIN OF CUSTODY FORM 0303079

Page 2 of 2

Note: By relinquishing samples to Del Mar Analytical, client agrees to use Del Mar Analytical's results.





28 March 2003

Matthew Winefield  
Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach, CA 90802

RE:Lynwood Springs

Work Order No.: 0302354

Attached are the results of the analyses for samples received by the laboratory on 02/28/03 17:02.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.  
If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth

Laboratory Director



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SR14-5	0302354-01	Soil	02/26/03 11:20	02/28/03 17:02
SR14-10	0302354-02	Soil	02/26/03 11:30	02/28/03 17:02

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Nou
SR14-5 (0302354-01) Soil Sampled: 02/26/03 11:20 Received: 02/28/03 17:02 D-3									
Acenaphthene	ND	1.0	mg/kg	5	B3C0417	03/03/03	03/04/03	EPA 8270C	
Acenaphthylene	ND	1.0	"	"	"	"	"	"	
Anthracene	ND	1.0	"	"	"	"	"	"	
Benzidine	ND	1.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	1.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	1.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	1.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	1.0	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	1.0	"	"	"	"	"	"	
Benzyl alcohol	ND	1.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	1.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	1.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	1.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	1.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	1.0	"	"	"	"	"	"	
4-Chloroaniline	ND	1.0	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	1.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	1.0	"	"	"	"	"	"	
Chrysene	ND	1.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	1.0	"	"	"	"	"	"	
Dibenzofuran	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	1.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	1.0	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	1.0	"	"	"	"	"	"	
Fluoranthene	ND	1.0	"	"	"	"	"	"	
Fluorene	ND	1.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SR14-5 (0302354-01) Soil Sampled: 02/26/03 11:20 Received: 02/28/03 17:02 D-3									
Hexachlorobenzene	ND	1.0	mg/kg	5	B3C0417	03/03/03	03/04/03	EPA 8270C	
Hexachlorobutadiene	ND	1.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.0	"	"	"	"	"	"	
Hexachloroethane	ND	1.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	1.0	"	"	"	"	"	"	
Isophorone	ND	1.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	1.0	"	"	"	"	"	"	
2-Methylphenol	ND	1.0	"	"	"	"	"	"	
4-Methylphenol	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
2-Nitroaniline	ND	1.0	"	"	"	"	"	"	
3-Nitroaniline	ND	1.0	"	"	"	"	"	"	
4-Nitroaniline	ND	1.0	"	"	"	"	"	"	
Nitrobenzene	ND	1.0	"	"	"	"	"	"	
2-Nitrophenol	ND	1.0	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	1.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.0	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Phenanthrene	ND	1.0	"	"	"	"	"	"	
Phenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.0	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		49.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		37.5 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		65.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		55.0 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		44.0 %	18-137		"	"	"	"	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

### Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SR14-10 (0302354-02) Soil    Sampled: 02/26/03 11:30    Received: 02/28/03 17:02										
Acenaphthene	ND	0.20	mg/kg	1	B3C0417	03/03/03	03/04/03	EPA 8270C		
Acenaphthylene	ND	0.20	"	"	"	"	"	"	"	
Anthracene	ND	0.20	"	"	"	"	"	"	"	
Benztidine	ND	0.20	"	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.20	"	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.20	"	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.20	"	"	"	"	"	"	"	
Benzyl alcohol	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.20	"	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.20	"	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.20	"	"	"	"	"	"	"	
4-Chloroaniline	ND	0.20	"	"	"	"	"	"	"	
2-Chlorophenol	ND	0.20	"	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.20	"	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.20	"	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"	
Chrysene	ND	0.20	"	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.20	"	"	"	"	"	"	"	
Dibenzofuran	ND	0.20	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.20	"	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.20	"	"	"	"	"	"	"	
Diethyl phthalate	ND	0.20	"	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.20	"	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.20	"	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.20	"	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.20	"	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.20	"	"	"	"	"	"	"	
Fluoranthene	ND	0.20	"	"	"	"	"	"	"	
Fluorene	ND	0.20	"	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

**Semivolatile Organic Compounds by EPA Method 8270C**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
SR14-10 (0302354-02) Soil Sampled: 02/26/03 11:30 Received: 02/28/03 17:02									
Hexachlorobenzene	ND	0.20	mg/kg	1	B3C0417	03/03/03	03/04/03	EPA 8270C	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.20	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.20	"	"	"	"	"	"	
4-Methylphenol	ND	0.20	"	"	"	"	"	"	
Naphthalene	ND	0.20	"	"	"	"	"	"	
2-Nitroaniline	ND	0.20	"	"	"	"	"	"	
3-Nitroaniline	ND	0.20	"	"	"	"	"	"	
4-Nitroaniline	ND	0.20	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.20	"	"	"	"	"	"	
4-Nitrophenol	ND	0.20	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.20	"	"	"	"	"	"	
Pentachlorophenol	ND	0.20	"	"	"	"	"	"	
Phenanthrene	ND	0.20	"	"	"	"	"	"	
Phenol	ND	0.20	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.20	"	"	"	"	"	"	
Surrogate: 2-Fluorophenol		90.0 %	25-121		"	"	"	"	
Surrogate: Phenol-d6		80.0 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		90.0 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		90.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		90.0 %	19-122		"	"	"	"	
Surrogate Terphenyl-d14		87.0 %	18-137		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C0417 - EPA 418.1**

**Blank (B3C0417-BLK1)**

Prepared: 03/03/03 Analyzed: 03/04/03

Acenaphthene	ND	0.20	mg/kg						
Acenaphthylene	ND	0.20	"						
Anthracene	ND	0.20	"						
Benzidine	ND	0.20	"						
Benzo (a) anthracene	ND	0.20	"						
Benzo (b) fluoranthene	ND	0.20	"						
Benzo (k) fluoranthene	ND	0.20	"						
Benzo (a) pyrene	ND	0.20	"						
Benzo (g,h,i) perylene	ND	0.20	"						
Benzyl alcohol	ND	0.20	"						
Bis(2-chloroethyl)ether	ND	0.20	"						
Bis(2-chloroethoxy)methane	ND	0.20	"						
Bis(2-ethylhexyl)phthalate	ND	0.20	"						
Bis(2-chloroisopropyl)ether	ND	0.20	"						
4-Bromophenyl phenyl ether	ND	0.20	"						
Butyl benzyl phthalate	ND	0.20	"						
4-Chloroaniline	ND	0.20	"						
2-Chlorophenol	ND	0.20	"						
4-Chloro-3-methylphenol	ND	0.20	"						
2-Chloronaphthalene	ND	0.20	"						
4-Chlorophenyl phenyl ether	ND	0.20	"						
Chrysene	ND	0.20	"						
Dibenz (a,h) anthracene	ND	0.20	"						
Dibenzofuran	ND	0.20	"						
1,3-Dichlorobenzene	ND	0.20	"						
1,2-Dichlorobenzene	ND	0.20	"						
1,4-Dichlorobenzene	ND	0.20	"						
3,3'-Dichlorobenzidine	ND	0.20	"						
2,4-Dichlorophenol	ND	0.20	"						
Diethyl phthalate	ND	0.20	"						
2,4-Dimethylphenol	ND	0.20	"						
Dimethyl phthalate	ND	0.20	"						
Di-n-butyl phthalate	ND	0.20	"						
2,4-Dinitrophenol	ND	0.20	"						
4,6-Dinitro-2-methylphenol	ND	0.20	"						
2,4-Dinitrotoluene	ND	0.20	"						
2,6-Dinitrotoluene	ND	0.20	"						

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3C0417 - EPA 418.1</b>									
<b>Blank (B3C0417-BLK1)</b>									
Prepared: 03/03/03 Analyzed: 03/04/03									
Di-n-octyl phthalate	ND	0.20	mg/kg						
1,2-Diphenylhydrazine	ND	0.20	"						
Fluoranthene	ND	0.20	"						
Fluorene	ND	0.20	"						
Hexachlorobenzene	ND	0.20	"						
Hexachlorobutadiene	ND	0.20	"						
Hexachlorocyclopentadiene	ND	0.20	"						
Hexachloroethane	ND	0.20	"						
Indeno (1,2,3-cd) pyrene	ND	0.20	"						
Isophorone	ND	0.20	"						
2-Methylnaphthalene	ND	0.20	"						
2-Methylphenol	ND	0.20	"						
4-Methylphenol	ND	0.20	"						
Naphthalene	ND	0.20	"						
2-Nitroaniline	ND	0.20	"						
3-Nitroaniline	ND	0.20	"						
4-Nitroaniline	ND	0.20	"						
Nitrobenzene	ND	0.20	"						
2-Nitrophenol	ND	0.20	"						
4-Nitrophenol	ND	0.20	"						
N-Nitrosodimethylamine	ND	0.20	"						
N-Nitrosodiphenylamine	ND	0.20	"						
N-Nitrosodi-n-propylamine	ND	0.20	"						
Pentachlorophenol	ND	0.20	"						
Phenanthrene	ND	0.20	"						
Phenol	ND	0.20	"						
Pyrene	ND	0.20	"						
1,2,4-Trichlorobenzene	ND	0.20	"						
2,4,5-Trichlorophenol	ND	0.20	"						
2,4,6-Trichlorophenol	ND	0.20	"						
Surrogate 2-Fluorophenol	0.530		"	1.00		53.0	25-121		
Surrogate Phenol-d6	0.300		"	1.00		30.0	24-113		
Surrogate Nitrobenzene-d5	0.390		"	1.00		39.0	23-120		
Surrogate 2-Fluorobiphenyl	0.400		"	1.00		40.0	30-115		
Surrogate 2,4,6-Tribromophenol	0.400		"	1.00		40.0	19-122		
Surrogate Terphenyl-d14	0.500		"	1.00		50.0	18-137		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C0417 - EPA 418.1**

**LCS (B3C0417-BS1)**

Prepared: 03/03/03 Analyzed: 03/04/03

Acenaphthene	1.00	0.20	mg/kg	2.00		50.0	47-145			
2-Chlorophenol	1.40	0.20	"	2.00		70.0	23-134			
4-Chloro-3-methylphenol	1.40	0.20	"	1.50		93.3	22-147			
1,4-Dichlorobenzene	0.600	0.20	"	1.00		60.0	20-124			
2,4-Dinitrotoluene	0.800	0.20	"	1.00		80.0	39-139			
4-Nitrophenol	ND	0.20	"	1.00			0-132			
N-Nitrosodi-n-propylamine	ND	0.20	"	1.00			0-230			
Pentachlorophenol	1.40	0.20	"	1.00		140	14-176			
Phenol	1.10	0.20	"	2.00		55.0	5-112			
Pyrene	1.50	0.20	"	2.00		75.0	52-115			
1,2,4-Trichlorobenzene	1.00	0.20	"	1.00		100	44-142			

**Matrix Spike (B3C0417-MS1)**

Source: 0302354-01

Prepared: 03/03/03 Analyzed: 03/04/03

Acenaphthene	1.00	0.20	mg/kg	2.00	ND	50.0	47-145			
2-Chlorophenol	1.40	0.20	"	2.00	ND	70.0	23-134			
4-Chloro-3-methylphenol	1.40	0.20	"	1.50	ND	93.3	22-147			
1,4-Dichlorobenzene	0.400	0.20	"	1.00	ND	40.0	20-124			
2,4-Dinitrotoluene	0.400	0.20	"	1.00	ND	40.0	39-139			
4-Nitrophenol	ND	0.20	"	1.00	ND		0-132			
N-Nitrosodi-n-propylamine	ND	0.20	"	1.00	ND		0-230			
Pentachlorophenol	1.50	0.20	"	1.00	ND	150	14-176			
Phenol	1.20	0.20	"	2.00	ND	60.0	5-112			
Pyrene	2.00	0.20	"	2.00	ND	100	52-115			
1,2,4-Trichlorobenzene	0.600	0.20	"	1.00	ND	60.0	44-142			

**Matrix Spike Dup (B3C0417-MSD1)**

Source: 0302354-01

Prepared: 03/03/03 Analyzed: 03/04/03

Acenaphthene	1.00	0.20	mg/kg	2.00	ND	50.0	47-145	0.00	30	
2-Chlorophenol	1.40	0.20	"	2.00	ND	70.0	23-134	0.00	30	
4-Chloro-3-methylphenol	1.50	0.20	"	1.50	ND	100	22-147	6.90	30	
1,4-Dichlorobenzene	0.500	0.20	"	1.00	ND	50.0	20-124	22.2	30	
2,4-Dinitrotoluene	0.500	0.20	"	1.00	ND	50.0	39-139	22.2	30	
4-Nitrophenol	ND	0.20	"	1.00	ND		0-132		30	
N-Nitrosodi-n-propylamine	ND	0.20	"	1.00	ND		0-230		30	
Pentachlorophenol	1.50	0.20	"	1.00	ND	150	14-176	0.00	30	
Phenol	1.00	0.20	"	2.00	ND	50.0	5-112	18.2	30	
Pyrene	1.50	0.20	"	2.00	ND	75.0	52-115	28.6	30	
1,2,4-Trichlorobenzene	0.800	0.20	"	1.00	ND	80.0	44-142	28.6	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: WAI-007  
Project Manager: Matthew Winefield

Reported:  
03/28/03 16:48

#### Notes and Definitions

D-34 Sample diluted due to high levels of petroleum hydrocarbons.  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



# WORLD OIL CORP.

9302 South Garfield Avenue

South Gate, CA 90280-2896

Phone (562) 928-0100 Fax (562) 928-0391

Sierra  
work order #

0302354

## CHAIN OF CUSTODY

Analytical Laboratory: Jones

Lab Project: \_\_\_\_\_

DATE: 2/26/03

Pg 1 Of 1

SITE/STATION #.

SITE/STATION ADDRESS:

CONSULTANT:

ADDRESS:

PROJECT MGR.

PROJECT #

TAT: ☐ 24 Hr ☒ 48 Hr ☐ 72 Hr ☐ Normal (5 Days) ☐ Other( )

SHIPPED VIA: ☐ Walk In ☐ Courier ☐ Fed Ex ☐ Other( )

Lynwood Springs

11600 S. Long Beach Blvd., Lynwood, CA.

Winefield & Associates

PHONE: (310) 578-6788

7740 W. Manchester Ave #205

Playa del Rey, CA 90293

FAX: (310) 578-9688

Matt Winefield

SAMPLER NAME:

Sheila Morrissey

WAI-007

PROJECT NAME:

Lynwood Springs

NUMBER OF CONTAINERS

8260 B

8270 C \*

temperature

## ANALYSES REQUESTED

SAMPLE ID

MATRIX

DATE

TIME

LAB ID

REMARKS

SR14-5

Soil

2/26/03

1120

3

X

X

SR14-10

Soil

2/26/03

1130

3

X

X

temperature blank  
3

Water

2/26/03

1130

1

X

\*  
Sent 2 Enclosures  
per sample to  
Sierra for 8270C  
analyses

1) RELINQUISHED BY:

Printed Name:

Signature:

Date/Time: 2/26/03 1330

2) RELINQUISHED BY:

Printed Name:

Signature:

Date/Time: 2/27/03

3) RELINQUISHED BY:

Printed Name:

Signature:

Date/Time:

1) RECEIVED BY:

Printed Name:

Signature:

Date/Time: 2/27/03 1130 AM

2) RECEIVED BY:

Printed Name:

Signature:

Date/Time: 2-27-03 5:02

3) RECEIVED BY:

Printed Name:

Signature:

Date/Time:



03 April 2003

Hector Garcia  
Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach, CA 90802

RE:Lynwood Springs

Work Order No.: 0302217

Attached are the results of the analyses for samples received by the laboratory on 02/17/03 13:45.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.  
If you require any additional retaining time, please advise us.

Sincerely,

---

Richard K. Forsyth  
Laboratory Director



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: C0492 + C0495  
Project Manager: Hector Garcia

Reported:  
04/03/03 14:44

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W&A MW1-26	0302217-01	Soil	02/10/03 09:30	02/17/03 13:45
W&A MW4-25	0302217-02	Soil	02/10/03 14:50	02/17/03 13:45
W&A MW3-1	0302217-03	Soil	02/11/03 08:40	02/17/03 13:45
W&A MW3-25	0302217-04	Soil	02/11/03 09:20	02/17/03 13:45
W&A ER-2	0302217-05	Liquid	02/11/03 09:00	02/17/03 13:45

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety*



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: C0492 + C0495  
Project Manager: **Hector Garcia**

Reported:  
04/03/03 14:44

**Metals by EPA 6000/7000 Series Methods**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>W&amp;A MW1-26 (0302217-01) Soil    Sampled: 02/10/03 09:30    Received: 02/17/03 13:45</b>									
Lead	ND	1.3	mg/kg	1	B3B1933	02/19/03	02/20/03	EPA 6010B	
<b>W&amp;A MW4-25 (0302217-02) Soil    Sampled: 02/10/03 14:50    Received: 02/17/03 13:45</b>									
Lead	1.4	1.3	mg/kg	1	B3B1933	02/19/03	02/20/03	EPA 6010B	
<b>W&amp;A MW3-1 (0302217-03) Soil    Sampled: 02/11/03 08:40    Received: 02/17/03 13:45</b>									
Lead	ND	1.4	mg/kg	1	B3B1933	02/19/03	02/20/03	EPA 6010B	
<b>W&amp;A MW3-25 (0302217-04) Soil    Sampled: 02/11/03 09:20    Received: 02/17/03 13:45</b>									
Lead	1.4	1.3	mg/kg	1	B3B1933	02/19/03	02/20/03	EPA 6010B	
<b>W&amp;A ER-2 (0302217-05) Liquid    Sampled: 02/11/03 09:00    Received: 02/17/03 13:45</b>									
Lead	ND	0.020	mg/L	1	B3B2536	02/25/03	02/25/03	EPA 6010B	

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: C0492 + C0495  
Project Manager: Hector Garcia

Reported:  
04/03/03 14:44

**Metals by EPA 6000/7000 Series Methods - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch B3B1933 - EPA 3050B**

**Blank (B3B1933-BLK1)** Prepared: 02/19/03 Analyzed: 02/20/03

Lead ND 2.8 mg/kg

**LCS (B3B1933-BS1)** Prepared: 02/19/03 Analyzed: 02/20/03

Lead 100 2.8 mg/kg 100 100 80-120

**Matrix Spike (B3B1933-MS1)** Source: 0302216-05 Prepared: 02/19/03 Analyzed: 02/20/03

Lead 105 2.8 mg/kg 98.9 7.0 99.1 70-130

**Matrix Spike Dup (B3B1933-MSD1)** Source: 0302216-05 Prepared: 02/19/03 Analyzed: 02/20/03

Lead 104 2.8 mg/kg 93.6 7.0 104 70-130 0.957 20

**Batch B3B2536 - EPA 3010A**

**Blank (B3B2536-BLK1)** Prepared & Analyzed: 02/25/03

Lead ND 0.020 mg/L

**LCS (B3B2536-BS1)** Prepared & Analyzed: 02/25/03

Lead 0.200 0.020 mg/L 0.200 100 80-120

**Matrix Spike (B3B2536-MS1)** Source: 0302217-05 Prepared & Analyzed: 02/25/03

Lead 0.204 0.020 mg/L 0.200 ND 102 75-125

**Matrix Spike Dup (B3B2536-MSD1)** Source: 0302217-05 Prepared & Analyzed: 02/25/03

Lead 0.202 0.020 mg/L 0.200 ND 101 75-125 0.985 20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: **C0492 + C0495**  
Project Manager: **Hector Garcia**

Reported:  
04/03/03 14:44

#### Notes and Definitions

DET      Analyte DETECTED  
ND      Analyte NOT DETECTED at or above the reporting limit  
NR      Not Reported  
dry      Sample results reported on a dry weight basis  
RPD      Relative Percent Difference

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





SIERRA ANALYTICAL

TEL: 949•348•9389

FAX: 949•348•9115

26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

# CHAIN OF CUSTODY RECORD

Date: 2/17/03 Page 1 of 1

Lab Project ID: C0492 + C0495

Client Winefield & Assoc  
 Client Address 110 Pine Ave. Ste 900  
Long Beach, CA 90802  
 Client Tel. No: 562-495-5777  
 Client Fax No: 562-495-5877  
 Client Proj. Mgr: Hector Garcia

Client Project ID

Lynwood Springs

Turn Around Time Requested:  
☐ Immediate ☐ 24 Hour  
☐ 48 Hour ☐ 72 Hour  
☐ 4 Day ☐ 5 Day  
☒ Normal ☐ Mobile

## Analyses Requested

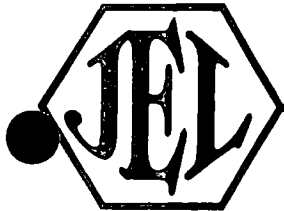
0302 217

Client Sample ID	Sierra Sample No.	Date/Time	Matrix	Preservatives	Container Type	No. of Containers	Comments
WEA MW1-26	01	2/11/03 0930	S	N/A	BRASS	1	X
WEA MW4-25	02	2/11/03 1450	S	N/A	BRASS	1	X
WEA MW3-1	03	2/11/03 0840	S	N/A	BRASS	1	X
WEA MW3-25	04	2/11/03 0920	S	N/A	BRASS	1	X
WEA-ER-2	05	2/11/03 0920	W	N/A	PLASTIC	1	X

<b>1</b> Sample Signatures Printed Name: _____ Relinquished By: <u>Karen Prume</u> Company: <u>JEL</u>		Shipped Via: _____ (Carrier/Waybill No.): _____ Received By: <u>MARKOFFEN</u> Company: <u>SIERRA ANALYTICAL</u>		Total Number of Containers Submitted to Laboratory  		Sample Disposal: <input type="checkbox"/> Return to Client <input type="checkbox"/> Lab Disposal* <input type="checkbox"/> Archive _____ mos. <input type="checkbox"/> Other _____
Date: <u>2/17/03</u> Time: <u>1:45</u>		Date: <u>2-17-03</u> Time: <u>1:45 PM</u>		The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT. * - Samples determined to be hazardous by SIERRA will be returned to CLIENT.		
<b>2</b> Relinquished By: _____ Company: _____		Received By: _____ Company: _____		Total Number of Containers Received by Laboratory <u>5</u>		<b>FOR LABORATORY USE ONLY - Sample Receipt Conditions:</b> <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Chilled - Temp (°C) <u>38°C</u> <input type="checkbox"/> Sample Seals <input type="checkbox"/> Preservatives - Verified By _____ <input checked="" type="checkbox"/> Properly Labeled <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Appropriate Sample Container <input checked="" type="checkbox"/> Storage Location <u>B39 R1A1</u>
Date: _____ Time: _____		Date: _____ Time: _____				
Special Instructions: _____						

**APPENDIX H**

**GROUNDWATER LABORATORY REPORTS AND C-O-C RECORDS**



# Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838  
(714) 449-9937 • FAX (714) 449-9685

JONES ENVIRONMENTAL

## LABORATORY REPORT

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/24/03  
JEL Ref. No.: C-0530

Attn: Hector Garcia

Date Sampled: 03/17/03  
Date Received: 03/18/03

Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

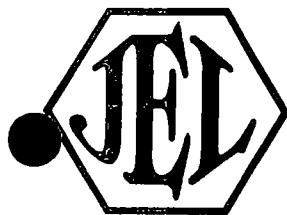
Date Analyzed: 03/20/03-03/21/03  
Physical State: Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



# Jones Environmental, Inc.

## Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838  
(714) 449-9937 • FAX (714) 449-9685

### JONES ENVIRONMENTAL

### LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/24/03  
JEL Ref. No.: C-0530

Attn: Hector Garcia

Date Sampled: 03/17/03  
Date Received: 03/18/03

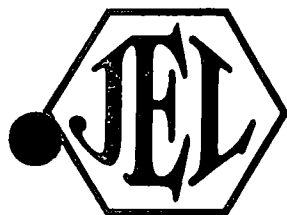
Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Date Analyzed: 03/20/03-03/21/03  
Physical State: Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>MW-24</u>	<u>MW-23</u>	<u>MW-33</u>	<u>MW-13</u>	<u>MW-19</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	280*	1200*	ND	1300*	0.5	ug/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.5	ug/L
Bromoform	ND	ND	ND	ND	ND	0.5	ug/L
Bromomethane	ND	ND	ND	ND	ND	0.5	ug/L
n-Butylbenzene	ND	19	22	ND	44	0.5	ug/L
sec-Butylbenzene	ND	16	16	ND	18	0.5	ug/L
tert-Butylbenzene	ND	ND	ND	ND	17	0.5	ug/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.5	ug/L
Chlorobenzene	ND	ND	ND	ND	ND	0.5	ug/L
Chloroethane	ND	ND	ND	ND	ND	0.5	ug/L
Chloroform	ND	ND	ND	ND	ND	0.5	ug/L
Chloromethane	ND	ND	ND	ND	ND	0.5	ug/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.5	ug/L
4-Chlorotoluene	ND	ND	14	ND	24	0.5	ug/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.5	ug/L
Dibromomethane	ND	ND	ND	ND	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.5	ug/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.5	ug/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.5	ug/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.5	ug/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.5	ug/L

ND = Not Detected



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## LABORATORY RESULTS

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Client Address: 110 Pine Ave., Suite 900  
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Report Date: 03/24/03  
JEL Ref. No.: C-0530

Attn: Hector Garcia

Date Sampled: 03/17/03  
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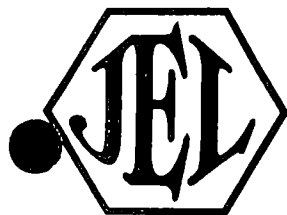
Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

Date Analyzed: 03/20/03-03/21/03  
Physical State: Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>MW-24</u>	<u>MW-23</u>	<u>MW-33</u>	<u>MW-13</u>	<u>MW-19</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>							
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.5	ug/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.5	ug/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.5	ug/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.5	ug/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.5	ug/L
Ethylbenzene	12	22	85*	ND	600*	0.5	ug/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.5	ug/L
Isopropylbenzene	ND	14	18	ND	35	0.5	ug/L
4-Isopropyltoluene	ND	ND	ND	ND	17	0.5	ug/L
Methylene chloride	ND	ND	ND	ND	ND	0.5	ug/L
Naphthalene	ND	ND	ND	ND	50	0.5	ug/L
n-Propylbenzene	ND	26	30	ND	120*	0.5	ug/L
Styrene	ND	ND	ND	ND	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.5	ug/L
Tetrachloroethylene	52	24	ND	ND	ND	0.5	ug/L
Toluene	1.2	61	14	ND	370*	0.5	ug/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.5	ug/L
Trichloroethylene	24	ND	ND	28	ND	0.5	ug/L

ND = Not Detected



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### JONES ENVIRONMENTAL

### LABORATORY RESULTS

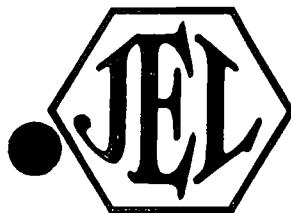
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/24/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0530
Attn:	Hector Garcia	Date Sampled:	03/17/03
		Date Received:	03/18/03
Project:	Lynwood Springs	Date Analyzed:	03/20/03-03/21/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

#### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>MW-24</u>	<u>MW-23</u>	<u>MW-33</u>	<u>MW-13</u>	<u>MW-19</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>							
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	ND	16	ND	18	0.5	ug/L
1,3,5-Trimethylbenzene	ND	27	26	15	90	0.5	ug/L
Vinyl chloride	ND	ND	ND	ND	ND	0.5	ug/L
Xylenes	25	ND	ND	ND	210*	0.5	ug/L
MTBE	ND	3700*	110*	ND	ND	0.5	ug/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.5	ug/L
Di-isopropylether	ND	ND	ND	ND	ND	0.5	ug/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.5	ug/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.5	ug/L
<b><u>Dilution Factor</u></b>	1	1/10*	1/10*	1	1/10*		
<b><u>Surrogate Recovery :</u></b>						<b><u>QC Limits</u></b>	
Dibromofluoromethane	99%	103%	73%	96%	103%	60 - 140	
Toluene-d <sub>8</sub>	102%	100%	100%	103%	103%	60 - 140	
4-Bromofluorobenzene	110%	107%	94%	100%	108%	60 - 140	

ND = Not Detected

\* = Dilutions for these compound(s); first for all others



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JONES ENVIRONMENTAL

## LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/24/03  
JEL Ref. No.: C-0530

Attn: Hector Garcia

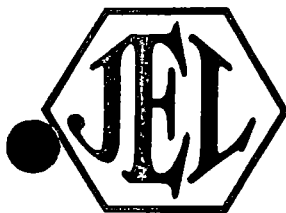
Date Sampled: 03/17/03  
Date Received: 03/18/03  
Date Analyzed: 03/20/03-03/21/03  
Physical State: Water

Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>MW-6</u>	<u>MW-17</u>	<u>MW-4</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>					
Benzene	ND	ND	15000*	0.5	ug/L
Bromodichloromethane	ND	ND	ND	0.5	ug/L
Bromoform	ND	ND	ND	0.5	ug/L
Bromomethane	ND	ND	ND	0.5	ug/L
n-Butylbenzene	ND	ND	29	0.5	ug/L
sec-Butylbenzene	ND	ND	16	0.5	ug/L
tert-Butylbenzene	ND	ND	ND	0.5	ug/L
Carbon tetrachloride	ND	ND	ND	0.5	ug/L
Chlorobenzene	ND	ND	ND	0.5	ug/L
Chloroethane	ND	ND	ND	0.5	ug/L
Chloroform	ND	ND	ND	0.5	ug/L
Chloromethane	ND	ND	ND	0.5	ug/L
2-Chlorotoluene	ND	ND	ND	0.5	ug/L
4-Chlorotoluene	ND	ND	16	0.5	ug/L
Dibromochloromethane	ND	ND	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	ND	ND	0.5	ug/L
Dibromomethane	ND	ND	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	ND	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	ND	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	ND	ND	0.5	ug/L
Dichlorodifluoromethane	ND	ND	ND	0.5	ug/L
1,1-Dichloroethane	ND	ND	ND	0.5	ug/L
1,2-Dichloroethane	ND	ND	ND	0.5	ug/L
1,1-Dichloroethene	ND	ND	ND	0.5	ug/L

ND = Not Detected



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JONES ENVIRONMENTAL

## LABORATORY RESULTS

Client: WINEFIELD & ASSOCIATES, INC.  
Client Address: 110 Pine Ave., Suite 900  
Long Beach, CA 90802

Report Date: 03/24/03  
JEL Ref. No.: C-0530

Attn: Hector Garcia

Date Sampled: 03/17/03  
Date Received: 03/18/03  
Date Analyzed: 03/20/03-03/21/03  
Physical State: Water

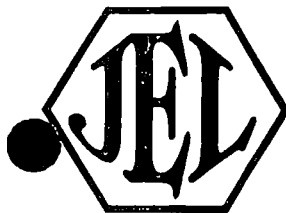
Project: Lynwood Springs  
Project Address: 11600 S. Long Beach Blvd., Lynwood, CA

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>MW-6</u>	<u>MW-17</u>	<u>MW-4</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>					
cis-1,2-Dichloroethene	ND	ND	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	ND	ND	0.5	ug/L
1,2-Dichloropropane	ND	ND	ND	0.5	ug/L
1,3-Dichloropropane	ND	ND	ND	0.5	ug/L
2,2-Dichloropropane	ND	ND	ND	0.5	ug/L
1,1-Dichloropropene	ND	ND	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	ND	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	16	ND	0.5	ug/L
Ethylbenzene	ND	ND	450	0.5	ug/L
Hexachlorobutadiene	ND	ND	ND	0.5	ug/L
Isopropylbenzene	ND	ND	24	0.5	ug/L
4-Isopropyltoluene	ND	ND	ND	0.5	ug/L
Methylene chloride	ND	ND	ND	0.5	ug/L
Naphthalene	ND	ND	41	0.5	ug/L
n-Propylbenzene	ND	ND	38	0.5	ug/L
Styrene	ND	ND	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.5	ug/L
Tetrachloroethylene	ND	ND	480	0.5	ug/L
Toluene	ND	ND	95	0.5	ug/L
1,2,3-Trichlorobenzene	ND	ND	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	ND	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	ND	ND	0.5	ug/L
Trichloroethylene	ND	24	170	0.5	ug/L

ND = Not Detected





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JONES ENVIRONMENTAL

## LABORATORY RESULTS

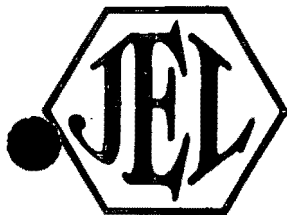
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/24/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0530
Attn:	Hector Garcia	Date Sampled:	03/17/03
		Date Received:	03/18/03
Project:	Lynwood Springs	Date Analyzed:	03/20/03-03/21/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>				<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>					
Trichlorofluoromethane	ND	ND	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	ND	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	ND	16	0.5	ug/L
1,3,5-Trimethylbenzene	13	ND	40	0.5	ug/L
Vinyl chloride	ND	ND	ND	0.5	ug/L
Xylenes	ND	ND	51	0.5	ug/L
MTBE	ND	ND	110000*	0.5	ug/L
Ethyl-tert-butylether	ND	ND	71	0.5	ug/L
Di-isopropylether	ND	ND	ND	0.5	ug/L
tert-amylmethylether	ND	ND	ND	0.5	ug/L
tert-Butylalcohol	ND	ND	ND	0.5	ug/L
<b>Dilution Factor</b>	1	1	1/500*		
<b>Surrogate Recovery :</b>				<b>QC Limits</b>	
Dibromofluoromethane	97%	97%	107%	60 - 140	
Toluene-d <sub>8</sub>	95%	105%	100%	60 - 140	
4-Bromofluorobenzene	98%	103%	100%	60 - 140	

ND = Not Detected

\* = Dilutions for these compound(s); first for all others



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JONES ENVIRONMENTAL

## QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/24/03
Client Address:	110 Pine Ave., Suite 900 Long Beach, CA 90802	JEL Ref. No.:	C-0530
Attn:	Hector Garcia	Date Sampled:	03/17/03
		Date Received:	03/18/03
Project:	Lynwood Springs	Date Analyzed:	03/20/03-03/21/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

## EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: CLEAN WATER

<u>Parameter</u>	<u>MS Recovery (%)</u>	<u>MSD Recovery (%)</u>	<u>RPD</u>	<u>Acceptability Range (%)</u>
Benzene	94%	93%	1.8%	60 - 140
Chlorobenzene	84%	84%	0.36%	60 - 140
Toluene	82%	80%	3.6%	60 - 140
Trichloroethylene	82%	80%	3.3%	60 - 140
1,1-Dichloroethylene	84%	85%	0.26%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference





24 March 2003

Matthew Winefield  
Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach, CA 90802

RE:Lynwood Springs

Work Order No.: 0303248

Attached are the results of the analyses for samples received by the laboratory on 03/18/03 16:00.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.  
If you require any additional retaining time, please advise us.

Sincerely,

---

Richard K. Forsyth  
Laboratory Director



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: **LYN-06-202**  
Project Manager: **Matthew Winefield**

Reported:  
03/24/03 15:08

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-24	0303248-01	Liquid	03/17/03 08:58	03/18/03 16:00
MW-23	0303248-02	Liquid	03/17/03 09:58	03/18/03 16:00
MW-33	0303248-03	Liquid	03/17/03 10:55	03/18/03 16:00
MW-13	0303248-04	Liquid	03/17/03 12:09	03/18/03 16:00
MW-19	0303248-05	Liquid	03/17/03 13:34	03/18/03 16:00
MW-6	0303248-06	Liquid	03/17/03 15:50	03/18/03 16:00
MW-17	0303248-07	Liquid	03/17/03 15:25	03/18/03 16:00
MW-4	0303248-08	Liquid	03/17/03 16:57	03/18/03 16:00

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-24 (0303248-01) Liquid Sampled: 03/17/03 08:58 Received: 03/18/03 16:00</b>									
Total Alkalinity	1340	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	1340	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	13.0	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	4.40	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	47.0	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	1.70	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	575	0.500	"	"	"	"	"	EPA 375.4	
<b>MW-23 (0303248-02) Liquid Sampled: 03/17/03 09:58 Received: 03/18/03 16:00</b>									
Total Alkalinity	1120	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	1120	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	32.0	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	39.6	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	135	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	1.00	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	225	0.500	"	"	"	"	"	EPA 375.4	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

### Conventional Chemistry Parameters by APHA/EPA Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-33 (0303248-03) Liquid Sampled: 03/17/03 10:55 Received: 03/18/03 16:00</b>									
Total Alkalinity	940	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	940	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	28.0	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	48.4	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	125	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	2.50	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	250	0.500	"	"	"	"	"	EPA 375.4	
<b>MW-13 (0303248-04) Liquid Sampled: 03/17/03 12:09 Received: 03/18/03 16:00</b>									
Total Alkalinity	900	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	900	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Chemical Oxygen Demand	8.50	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	35.2	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	30.0	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	1.70	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	625	0.500	"	"	"	"	"	EPA 375.4	

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

### Conventional Chemistry Parameters by APHA/EPA Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-19 (0303248-05) Liquid Sampled: 03/17/03 13:34 Received: 03/18/03 16:00</b>									
Total Alkalinity	1160	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	1160	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	11.2	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	30.8	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	42.0	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	2.40	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	150	0.500	"	"	"	"	"	EPA 375.4	
<b>MW-6 (0303248-06) Liquid Sampled: 03/17/03 15:50 Received: 03/18/03 16:00</b>									
Total Alkalinity	1520	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	1520	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	14.6	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	8.80	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	51.0	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	0.0280	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	3.00	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	225	0.500	"	"	"	"	"	EPA 375.4	

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110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: **LYN-06-202**  
Project Manager: **Matthew Winefield**

Reported:  
03/24/03 15:08

**Conventional Chemistry Parameters by APHA/EPA Methods**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-17 (0303248-07) Liquid Sampled: 03/17/03 15:25 Received: 03/18/03 16:00</b>									
Total Alkalinity	880	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	880	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	8.00	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	13.2	0.100	"	"	"	"	03/18/03	4500-CO2	H-01
Chemical Oxygen Demand	28.0	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	0.400	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	500	0.500	"	"	"	"	"	EPA 375.4	

**MW-4 (0303248-08) Liquid Sampled: 03/17/03 16:57 Received: 03/18/03 16:00**

Total Alkalinity	1660	0.400	mg/L	1	B3C2008	03/18/03	03/18/03	EPA 310.1	
Carbonate Alkalinity	ND	0.400	"	"	"	"	"	"	
Bicarbonate Alkalinity	1660	0.400	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.400	"	"	"	"	"	"	
Biochemical Oxygen Demand	256	2.00	"	"	"	"	03/23/03	EPA 405.1	
Carbon dioxide, free	26.4	0.100	"	"	"	"	03/18/03	4500-CO2	
Chemical Oxygen Demand	920	0.100	"	"	"	"	"	EPA 410.4	
Ferrous Iron	ND	1.00	"	"	"	"	"	SM-3500-FE-D	
Nitrite as N	ND	0.0200	"	"	"	"	"	SM4500-NO2B	
Nitrate as N	0.380	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	200	0.500	"	"	"	"	"	EPA 375.4	

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Project: Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

### Miscellaneous Physical/Conventional Chemistry Parameters

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-24 (0303248-01) Liquid Sampled: 03/17/03 08:58 Received: 03/18/03 16:00</b>									
Chloride	85.0	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-23 (0303248-02) Liquid Sampled: 03/17/03 09:58 Received: 03/18/03 16:00</b>									
Chloride	112	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-33 (0303248-03) Liquid Sampled: 03/17/03 10:55 Received: 03/18/03 16:00</b>									
Chloride	94.0	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-13 (0303248-04) Liquid Sampled: 03/17/03 12:09 Received: 03/18/03 16:00</b>									
Chloride	122	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-19 (0303248-05) Liquid Sampled: 03/17/03 13:34 Received: 03/18/03 16:00</b>									
Chloride	83.0	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-6 (0303248-06) Liquid Sampled: 03/17/03 15:50 Received: 03/18/03 16:00</b>									
Chloride	64.0	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-17 (0303248-07) Liquid Sampled: 03/17/03 15:25 Received: 03/18/03 16:00</b>									
Chloride	69.0	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	
<b>MW-4 (0303248-08) Liquid Sampled: 03/17/03 16:57 Received: 03/18/03 16:00</b>									
Chloride	109	0.500	mg/L	1	B3C2008	03/18/03	03/18/03	SM 4500-Cl-B	

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Reported:  
03/24/03 15:08

### Metals by EPA 200 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-24 (0303248-01) Liquid Sampled: 03/17/03 08:58 Received: 03/18/03 16:00</b>									
Calcium	93	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	9.3	0.10	"	"	"	"	"	"	
Magnesium	59	0.10	"	"	"	"	03/20/03	"	
Sodium	900	0.50	"	5	"	"	03/20/03	"	
Lead	0.022	0.020	"	1	"	"	03/20/03	"	
<b>MW-23 (0303248-02) Liquid Sampled: 03/17/03 09:58 Received: 03/18/03 16:00</b>									
Calcium	180	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	13	0.10	"	"	"	"	"	"	
Magnesium	64	0.10	"	"	"	"	03/20/03	"	
Sodium	440	0.10	"	"	"	"	03/20/03	"	
Lead	ND	0.020	"	"	"	"	03/20/03	"	
<b>MW-33 (0303248-03) Liquid Sampled: 03/17/03 10:55 Received: 03/18/03 16:00</b>									
Calcium	150	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	11	0.10	"	"	"	"	"	"	
Magnesium	54	0.10	"	"	"	"	03/20/03	"	
Sodium	420	0.10	"	"	"	"	03/20/03	"	
Lead	ND	0.020	"	"	"	"	03/20/03	"	
<b>MW-13 (0303248-04) Liquid Sampled: 03/17/03 12:09 Received: 03/18/03 16:00</b>									
Calcium	180	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	14	0.10	"	"	"	"	"	"	
Magnesium	53	0.10	"	"	"	"	03/20/03	"	
Sodium	620	0.50	"	5	"	"	03/20/03	"	
Lead	ND	0.020	"	1	"	"	03/20/03	"	

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Project: Lynwood Springs  
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Reported:  
03/24/03 15:08

**Metals by EPA 200 Series Methods**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-19 (0303248-05) Liquid Sampled: 03/17/03 13:34 Received: 03/18/03 16:00</b>									
Calcium	72	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	6.7	0.10	"	"	"	"	"	"	
Magnesium	51	0.10	"	"	"	"	03/20/03	"	
Sodium	480	0.10	"	"	"	"	03/20/03	"	
Lead	ND	0.020	"	"	"	"	03/20/03	"	
<b>MW-6 (0303248-06) Liquid Sampled: 03/17/03 15:50 Received: 03/18/03 16:00</b>									
Calcium	140	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	4.8	0.10	"	"	"	"	"	"	
Magnesium	120	0.10	"	"	"	"	03/20/03	"	
Sodium	710	0.50	"	5	"	"	03/20/03	"	
Lead	ND	0.020	"	1	"	"	03/20/03	"	
<b>MW-17 (0303248-07) Liquid Sampled: 03/17/03 15:25 Received: 03/18/03 16:00</b>									
Calcium	190	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	10	0.10	"	"	"	"	"	"	
Magnesium	58	0.10	"	"	"	"	03/20/03	"	
Sodium	510	0.10	"	"	"	"	03/20/03	"	
Lead	ND	0.020	"	"	"	"	03/20/03	"	
<b>MW-4 (0303248-08) Liquid Sampled: 03/17/03 16:57 Received: 03/18/03 16:00</b>									
Calcium	130	0.10	mg/L	1	B3C1923	03/19/03	03/20/03	EPA 200.7	
Potassium	14	0.10	"	"	"	"	"	"	
Magnesium	49	0.10	"	"	"	"	03/20/03	"	
Sodium	780	0.50	"	5	"	"	03/20/03	"	
Lead	ND	0.020	"	1	"	"	03/20/03	"	

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Project: Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

### Methane by Headspace GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-24 (0303248-01) Liquid Sampled: 03/17/03 08:58 Received: 03/18/03 16:00</b>									
Methane	ND	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>MW-23 (0303248-02) Liquid Sampled: 03/17/03 09:58 Received: 03/18/03 16:00</b>									
Methane	26	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>MW-33 (0303248-03) Liquid Sampled: 03/17/03 10:55 Received: 03/18/03 16:00</b>									
Methane	18	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>MW-13 (0303248-04) Liquid Sampled: 03/17/03 12:09 Received: 03/18/03 16:00</b>									
Methane	ND	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>MW-19 (0303248-05) Liquid Sampled: 03/17/03 13:34 Received: 03/18/03 16:00</b>									
Methane	130	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>MW-6 (0303248-06) Liquid Sampled: 03/17/03 15:50 Received: 03/18/03 16:00</b>									
Methane	ND	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>W-17 (0303248-07) Liquid Sampled: 03/17/03 15:25 Received: 03/18/03 16:00</b>									
Methane	20	5.0	µg/L	1	B3C1928	03/19/03	03/20/03	EPA 8015B	
<b>MW-4 (0303248-08) Liquid Sampled: 03/17/03 16:57 Received: 03/18/03 16:00</b>									
Methane	4100	100	µg/L	20	B3C1928	03/19/03	03/20/03	EPA 8015B	

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90 Pine Ave, Suite 900  
Long Beach CA, 90802

Project Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

**Total Volatile Petroleum Hydrocarbons (TVPH) by GC/FID**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-24 (0303248-01) Liquid Sampled: 03/17/03 08:58 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	51	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	94.5 %	70-125			"	"	"	"	
<b>MW-23 (0303248-02) Liquid Sampled: 03/17/03 09:58 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	2300	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	94.5 %	70-125			"	"	"	"	
<b>MW-33 (0303248-03) Liquid Sampled: 03/17/03 10:55 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	3000	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	94.0 %	70-125			"	"	"	"	
<b>MW-13 (0303248-04) Liquid Sampled: 03/17/03 12:09 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	ND	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	90.5 %	70-125			"	"	"	"	
<b>MW-19 (0303248-05) Liquid Sampled: 03/17/03 13:34 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	4000	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	100 %	70-125			"	"	"	"	
<b>MW-6 (0303248-06) Liquid Sampled: 03/17/03 15:50 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	ND	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	86.0 %	70-125			"	"	"	"	
<b>MW-17 (0303248-07) Liquid Sampled: 03/17/03 15:25 Received: 03/18/03 16:00</b>									
Gasoline Range Hydrocarbons (C4-C12)	ND	50	µg/L	1	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene	89.5 %	70-125			"	"	"	"	

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Project: Lynwood Springs  
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Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

**Total Volatile Petroleum Hydrocarbons (TVPH) by GC/FID**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (0303248-08) Liquid    Sampled: 03/17/03 16:57    Received: 03/18/03 16:00									
Gasoline Range Hydrocarbons (C4-C12)	32000	500	µg/L	10	B3C2003	03/20/03	03/20/03	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		83.0 %	70-125		"	"	"	"	

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**Metals by EPA 200 Series Methods - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1923 - EPA 200 Series**

**Blank (B3C1923-BLK1)**

Prepared: 03/19/03 Analyzed: 03/20/03

Calcium	ND	0.10	mg/L							
Lead	ND	0.020	"							
Magnesium	ND	0.10	"							
Potassium	ND	0.10	"							
Sodium	ND	0.10	"							

**LCS (B3C1923-BS1)**

Prepared: 03/19/03 Analyzed: 03/20/03

Calcium	0.454	0.10	mg/L	20.4		2.23	85-115			QM-01
Lead	0.420	0.020	"	0.400		105	85-115			
Magnesium	0.425	0.10	"	20.4		2.08	85-115			QM-01
Potassium	4.54	0.10	"	24.0		18.9	85-115			QM-01
Sodium	0.434	0.10	"	20.4		2.13	85-115			QM-01

**Matrix Spike (B3C1923-MS1)**

Source: 0303248-01

Prepared: 03/19/03 Analyzed: 03/20/03

Calcium	89.7	0.10	mg/L	20.4	93	NR	70-130			QM-01
Lead	0.423	0.020	"	0.400	0.022	100	70-130			
Magnesium	57.3	0.10	"	20.4	59	NR	70-130			QM-01
Potassium	13.9	0.10	"	24.0	9.3	19.2	70-130			QM-01
Sodium	1000000000	0.10	"	20.4	900	NR	70-130			QM-01

**Matrix Spike Dup (B3C1923-MSD1)**

Source: 0303248-01

Prepared: 03/19/03 Analyzed: 03/20/03

Calcium	91.0	0.10	mg/L	20.4	93	NR	70-130	1.44	20	QM-01
Lead	0.436	0.020	"	0.400	0.022	104	70-130	3.03	20	
Magnesium	56.9	0.10	"	20.4	59	NR	70-130	0.701	20	QM-01
Potassium	14.5	0.10	"	24.0	9.3	21.7	70-130	4.23	20	QM-01
Sodium	1000000000	0.10	"	20.4	900	NR	70-130	0.00	20	QM-01

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

**Methane by Headspace GC-FID - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3C1928 - EPA 3810 Headspace**

**Blank (B3C1928-BLK1)**

Prepared: 03/19/03 Analyzed: 03/20/03

Methane	ND	5.0	µg/L							
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**LCS (B3C1928-BS1)**

Prepared: 03/19/03 Analyzed: 03/20/03

Methane	54.9	5.0	µg/L	62.5		87.8	80-120			
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**Duplicate (B3C1928-DUP1)**

Source: 0303248-08

Prepared: 03/19/03 Analyzed: 03/20/03

Methane	3920	100	µg/L		4100			4.49	30	
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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: Lynwood Springs  
Project Number: LYN-06-202  
Project Manager: Matthew Winefield

Reported:  
03/24/03 15:08

**Total Volatile Petroleum Hydrocarbons (TVPH) by GC/FID - Quality Control**

**Sierra Analytical Labs, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch B3C2003 - EPA 5030B P & T**

**Blank (B3C2003-BLK1)**

Prepared & Analyzed: 03/20/03

Gasoline Range Hydrocarbons (C4-C12) ND 50 µg/L

Surrogate: a,a,a-Trifluorotoluene 16.9 " 20.0 84.5 70-125

**LCS (B3C2003-BS1)**

Prepared & Analyzed: 03/20/03

Gasoline Range Hydrocarbons (C4-C12) 655 50 µg/L 600 109 80-120

**Matrix Spike (B3C2003-MS1)**

Source: 0303264-02

Prepared & Analyzed: 03/20/03

Gasoline Range Hydrocarbons (C4-C12) 485 50 µg/L 600 ND 80.8 50-150

**Matrix Spike Dup (B3C2003-MSD1)**

Source: 0303264-02

Prepared & Analyzed: 03/20/03

Gasoline Range Hydrocarbons (C4-C12) 585 50 µg/L 600 ND 97.5 50-150 18.7 30

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Winefield & Associates  
110 Pine Ave, Suite 900  
Long Beach CA, 90802

Project: **Lynwood Springs**  
Project Number: **LYN-06-202**  
Project Manager: **Matthew Winefield**

**Reported:**  
**03/24/03 15:08**

#### Notes and Definitions

H-01 Sample received without sufficient time to complete analysis within recommended holding time.

QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

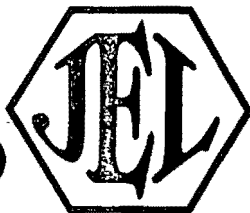
dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

---

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Testing Laboratories

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## LABORATORY REPORT

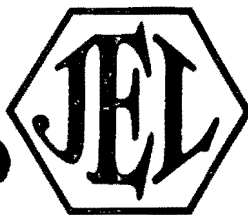
Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/27/03
Client Address:	110 Pine Ave., Suite 900	JEL Ref. No.:	B-3691
	Long Beach, CA 90802	Client Ref. No.:	LYN-06-202
Attn:	Hector Garcia	Date Sampled:	03/21/03
		Date Received:	03/25/03
Project:	Lynwood Springs	Date Analyzed:	03/27/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### ANALYSES REQUESTED

1. EPA 5035B/8260B- Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.  
Laboratory Manager



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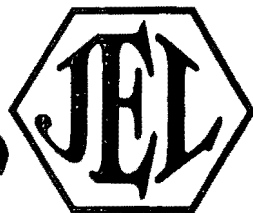
## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/27/03
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	Long Beach, CA 90802	Client Ref. No.:	LYN-06-202
Attn:	Hector Garcia	Date Sampled:	03/21/03
		Date Received:	03/25/03
Project:	Lynwood Springs	Date Analyzed:	03/27/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-</u> <u>MW-1</u>	<u>W&amp;A-</u> <u>MW-2</u>	<u>W&amp;A-</u> <u>MW-3</u>	<u>W&amp;A-</u> <u>MW-4</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>						
Benzene	ND	4.1	ND	ND	0.5	ug/L
Bromodichloromethane	ND	ND	ND	ND	0.5	ug/L
Bromoform	ND	ND	ND	ND	0.5	ug/L
Bromomethane	ND	ND	ND	ND	0.5	ug/L
n-Butylbenzene	ND	ND	ND	ND	0.5	ug/L
sec-Butylbenzene	ND	ND	ND	ND	0.5	ug/L
tert-Butylbenzene	ND	ND	ND	ND	0.5	ug/L
Carbon tetrachloride	ND	ND	ND	ND	0.5	ug/L
Chlorobenzene	ND	ND	ND	ND	0.5	ug/L
Chloroethane	ND	ND	ND	ND	0.5	ug/L
Chloroform	ND	ND	ND	ND	0.5	ug/L
Chloromethane	ND	ND	ND	ND	0.5	ug/L
2-Chlorotoluene	ND	ND	ND	ND	0.5	ug/L
4-Chlorotoluene	ND	ND	ND	ND	0.5	ug/L
Dibromochloromethane	ND	ND	ND	ND	0.5	ug/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	0.5	ug/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	0.5	ug/L
Dibromomethane	ND	ND	ND	ND	0.5	ug/L
1,2-Dichlorobenzene	ND	ND	ND	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	ND	ND	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	ND	ND	ND	0.5	ug/L
Dichlorodifluoromethane	ND	ND	ND	ND	0.5	ug/L
1,1-Dichloroethane	ND	ND	ND	ND	0.5	ug/L
1,2-Dichloroethane	ND	ND	ND	ND	0.5	ug/L
1,1-Dichloroethene	ND	ND	ND	ND	0.5	ug/L

ND = Not Detected



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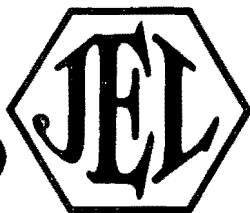
## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/27/03
Client Address:	110 Pine Ave., Suite 900	JEL Ref. No.:	B-3691
	Long Beach, CA 90802	Client Ref. No.:	LYN-06-202
Attn:	Hector Garcia	Date Sampled:	03/21/03
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Project:	Lynwood Springs	Date Analyzed:	03/27/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

<u>Sample ID:</u>	<u>W&amp;A-</u> <u>MW-1</u>	<u>W&amp;A-</u> <u>MW-2</u>	<u>W&amp;A-</u> <u>MW-3</u>	<u>W&amp;A-</u> <u>MW-4</u>	<u>Practical</u> <u>Quantitation</u> <u>Limits</u>	<u>Units</u>
<b>Analytes:</b>						
cis-1,2-Dichloroethene	ND	ND	17	ND	0.5	ug/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	0.5	ug/L
1,2-Dichloropropane	ND	ND	ND	ND	0.5	ug/L
1,3-Dichloropropane	ND	ND	ND	ND	0.5	ug/L
2,2-Dichloropropane	ND	ND	ND	ND	0.5	ug/L
1,1-Dichloropropene	ND	ND	ND	ND	0.5	ug/L
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.5	ug/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	0.5	ug/L
Ethylbenzene	ND	ND	ND	ND	0.5	ug/L
Hexachlorobutadiene	ND	ND	ND	ND	0.5	ug/L
Isopropylbenzene	ND	ND	ND	ND	0.5	ug/L
4-Isopropyltoluene	ND	ND	ND	ND	0.5	ug/L
Methylene chloride	ND	ND	ND	ND	0.5	ug/L
Naphthalene	ND	ND	ND	ND	0.5	ug/L
n-Propylbenzene	ND	ND	ND	ND	0.5	ug/L
Styrene	ND	ND	ND	ND	0.5	ug/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	0.5	ug/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	0.5	ug/L
Tetrachloroethylene	ND	ND	ND	ND	0.5	ug/L
Toluene	ND	ND	ND	ND	0.5	ug/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	0.5	ug/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	0.5	ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND	0.5	ug/L
1,1,2-Trichloroethane	ND	ND	ND	ND	0.5	ug/L
Trichloroethylene	ND	26	49	0.8	0.5	ug/L

ND = Not Detected



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## LABORATORY RESULTS

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/27/03
Client Address:	110 Pine Ave., Suite 900	JEL Ref. No.:	B-3691
	Long Beach, CA 90802	Client Ref. No.:	LYN-06-202
Attn:	Hector Garcia	Date Sampled:	03/21/03
		Date Received:	03/25/03
Project:	Lynwood Springs	Date Analyzed:	03/27/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

### EPA 5035B/8260B- Volatile Organics by GC/MS & Oxygenates

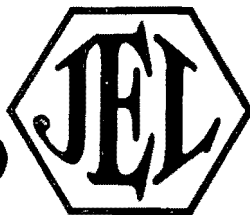
<u>Sample ID:</u>	<u>W&amp;A- MW-1</u>	<u>W&amp;A- MW-2</u>	<u>W&amp;A- MW-3</u>	<u>W&amp;A- MW-4</u>	<u>Practical Quantitation Limits</u>	<u>Units</u>
<b>Analytes:</b>						
Trichlorofluoromethane	ND	ND	ND	ND	0.5	ug/L
1,2,3-Trichloropropane	ND	ND	ND	ND	0.5	ug/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	0.5	ug/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	0.5	ug/L
Vinyl chloride	ND	ND	ND	ND	0.5	ug/L
Xylenes	ND	ND	ND	ND	0.5	ug/L
MTBE	ND	ND	ND	ND	0.5	ug/L
Ethyl-tert-butylether	ND	ND	ND	ND	0.5	ug/L
Di-isopropylether	ND	ND	ND	ND	0.5	ug/L
tert-amylmethylether	ND	ND	ND	ND	0.5	ug/L
tert-Butylalcohol	ND	ND	ND	ND	0.5	ug/L

<u>Dilution Factor</u>	1	1	1	1
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<u>Surrogate Recovery :</u>					<u>QC Limits</u>
Dibromofluoromethane	109%	103%	103%	107%	60 - 140
Toluene-d <sub>8</sub>	107%	108%	107%	109%	60 - 140
4-Bromofluorobenzene	94%	96%	96%	98%	60 - 140

ND = Not Detected





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## QUALITY CONTROL INFORMATION

Client:	WINEFIELD & ASSOCIATES, INC.	Report Date:	03/27/03
Client Address:	110 Pine Ave., Suite 900	JEL Ref. No.:	B-3691
	Long Beach, CA 90802	Client Ref. No.:	LYN-06-202
Attn:	Hector Garcia	Date Sampled:	03/21/03
		Date Received:	03/25/03
Project:	Lynwood Springs	Date Analyzed:	03/27/03
Project Address:	11600 S. Long Beach Blvd., Lynwood, CA	Physical State:	Water

## EPA 5035B/8260B- Volatile Organics by GC/MS

Sample Spiked: MW-1

<u>Parameter</u>	<u>MS</u> <u>Recovery (%)</u>	<u>MSD</u> <u>Recovery (%)</u>	<u>RPD</u>	<u>Acceptability</u> <u>Range (%)</u>
Benzene	103%	102%	1.5%	60 - 140
Chlorobenzene	91%	89%	2.7%	60 - 140
Toluene	90%	90%	0.6%	60 - 140
Trichloroethylene	93%	94%	0.6%	60 - 140
1,1-Dichloroethylene	95%	94%	1.5%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike  
MSD = Matrix Spike Duplicate  
RPD = Relative Percent Difference



SIERRA ANALYTICAL

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Jones

## CHAIN OF CUSTODY RECORD

Date 3/21/03 Page 1Lab Work Order No. B3691

Client: <u>Winefield &amp; Associates</u>		Client Project ID: <u>LYN-06-202</u>		Analysis Requested												Geotracker EDD Info.					
Client Address: <u>110 Pine Ave. Ste. 900</u> <u>Long Beach, CA</u>																Client LOGCODE					
Client Tel. No: <u>562-495-4777</u>																Site Global ID					
Client Fax No.: _____																Field Point Names / Comments					
Client Proj. Mgr.: <u>Matt Winefield</u>																					
Client Sample ID	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No of Containers	826013 (Full) Temperature													
WEA-MW-1		3-21-03		water	HCl	VOA	3	X													
WEA-MW-2		↓		↓	↓	↓	3	X													
WEA-MW-3		↓		↓	↓	↓	3	X													
WEA-MW-4		↓		↓	↓	↓	3	X													
Temperature Blank		3-21-03		water	none	VOA	1	X										3.1°C			
1 Sampler Signature: <u>Sheila K. Morrissey</u>		Shipped Via: <u>FedEx</u>														Total Number of Containers Submitted to Laboratory		Sample Disposal:			
Printed Name: <u>Sheila K. Morrissey</u>		(Carrier Waybill No.) <u>8391-1462-1852</u>																<input type="checkbox"/> Return to Client			
2 Relinquished By		Date		Received By: <u>Karen Prange</u>		Date: <u>3/25/03</u>		The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT. * - Samples determined to be hazardous by SIERRA will be returned to CLIENT.												<input type="checkbox"/> Lab Disposal*	
Company		Time		Company: <u>JEL</u>		Time: <u>10:46</u>														<input type="checkbox"/> Archive _____ mos	
3 Relinquished By		Date		Received By		Date														<input type="checkbox"/> Other _____	
Company		Time		Company		Time															
4 Relinquished By		Date		Received By		Date															
Company		Time		Company		Time															
Special Instructions								FOR LABORATORY USE ONLY - Sample Receipt Conditions:													
								<input type="checkbox"/> Intact <input type="checkbox"/> Chilled - Temp (°C) _____													
								<input type="checkbox"/> Sample Seals <input type="checkbox"/> Preservatives - Verified By _____													
								<input type="checkbox"/> Properly Labeled <input type="checkbox"/> Other _____													
								<input type="checkbox"/> Appropriate Sample Container <input type="checkbox"/> Storage Location _____													

**SIERRA ANALYTICAL**

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## CHAIN OF CUSTODY RECORD

Date: 5/17/06 Page 1 of 1

Lab Work Order No. \_\_\_\_\_

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